Vol. XXVIII. No. 86

BOSTON, MASS., MONDAY, MAY 24, 1909

PRICE THREE CENTS

TECH BOARD MEETS AND ELECTS STAFF

Staff and Plans for Daily Next Year Discussed and Settled

PRICE TO BE ONE CENT

No Subscription Books will be Sold But Paper will be Mailed for \$1.50

At.a meeting of the Board of Editors of The Tech last week final arrangements for publication of a daily next year were decided upon and a large number of appointments, announced in the editorial columns, were made.

It was decided that the plan that has been in practice this year will be extended to meet the needs of a daily. The editor-in-chief will have general supervision of the editorial columns and policy of the paper and the managing editor of the gathering and printing of news. Under them will be six associate editors, each in charge of one issue and responsible for the details of its publication. Under each associate will be a staff of news men upon whom the work is supposed to fall.

There will be a staff of three editors, each in charge of one of the departments, -Instituute, Athletics and Societies, who will have immediate supervision of all news matter that goes into the paper, both as to contents and literary quality.

As announced in a recent Tech an exchange department will be e-tablished, a column of news items from other colleges, printed regularly, a brief summary of current events will be run in addition to the regular Technology

The cost of yearly subscripptions will be the same as this year, a dollar and a half, but the price per issue will be but one cent. This reduction in price is made possible by the fact that the greater circulation will increase the value of The Tech as an advertising medium and the income from advertisements, the principal source of revenue, will be augmented. Subscription books will not be sold.

FELLOWSHIP AWARDS

Grants and Appointments Made For the Ensuing Year

H. S. Osborne accepted as a candidate for the degree of Doctor of Engineering in the Department of Electrical Engineering and appointed Austin Research Fellow for '09-'10.

S. J. Schofield accepted as candidate for degree of Doctor of Philosophy in the Department of Geology.

P. S. Fisk appointed Doctor Fellow for year '09-'10 to pursue graduate work in chemistry in Germany.

R. R. Heuter appointed Swett Fellow for '09-'10 to pursue advanced studies in engineering in Germany.

J. A. Allan is working under the Austin Fund for the Doctor's Degree in

C. H. Clapp is reappointed Austin Fellow '09-'10 and is continuing his studies for the Doctor's Degree in Geology. E. C. Howe is reappointed Savage Fel-

low and is working for the Doctor's gram, proved exciting. The second heat, Degree in Biology.

W. S. Rodman is working under the Saltonstall Fund, for the Doctor's Degree in Electrical Engineering.

Goodmate scholarship awards have also been made for the Austin Fund to U. N. Gazier and T. H. King for advanced study in the Department of Ar- most together, directly behind the leadchitecture; M. Randall, C. P. Randolph, ers. Hawley's time was 10 2-5s, re-F. F. Rupert and W. C. Slade in the Department of Chemistry; and R. R. T. Jones in the Department of Electri- in the 120-vard hurdle event, knocking cal Engineering.

TECHNOLOGY CAPTURES SECOND PLACE IN CLOSE MEET WON BY DARTMOUTH AT TECH FIELD LAST SATURDAY

First Places in Half and Two Mile Events Won by P. D. White 1911 and H. H. Howland— Seconds in Mile and Pole Vault by G. H. Watkins 1912 and W. D. Allen 1911— Salisbury Third in 440 Yard Dash

TWO STARS, SHERMAN OF DARTMOUTH AND GRAM UNABLE TO RUN

Hundred Yard Dash Won by Hawley of Dartmouth, Mile Run by Colbath of Bowdoin, High Hurdles by Horrax of Williams, 440 Yard Dash by Bacon of Wesleyan, 220 Yard Dash by Hawley of Dartmouth, Shot Put by Kilbourn of Amherst

Technology took second place in the lish by several yards over Mayhew and liftcen yards. Wells of Brown took field meet won by Dartmouth on Tech field in Brookline on Saturday afternoon. 32 1-2 points were scored by the Han-Williams and Bowdoin scored 24 and 20 respectively.

This gives Dartmouth five legs on the new fifteen year cup, competition for which was started in 1902. Amherst won the first three meets.

The result of the meet was in doubt until the last event had been finished, Tech, Williams and Dartmouth being the three teams in the race for the first

W. D. Allen and W. C. Salisbury were the Tech men who qualified for the finals in this event. Five men cleared the bar at 10 feet 6 inches. Holdman of Dartmouth made the best height, 11 feet 6 inches, Allen took second at 11 feet 3 inches, made in his second trial, while Horrax of Williams captured third place at 11 feet. Salisbury and Jenks split a point between them.

No records were broken, due to the adverse weather conditions, and in the field event the distances made in the preliminaries were in several cases sufficient to take first place in the event.

Two star athletes were unable to compete, Sherman of Dartmouth received a muscle strain in his last broad jump on Friday and Carl Gram was unable to run in the quarter mile event for which he qualified on account of a severe strain Edwards, Bowdoin and Mayhew, Brown which he received in the Handicap meet a week ago, and which was made worse by his running in the preliminaries. Captain Walker of Dartmouth could finish but one lap of the mile run on account of a bruised ankle.

Following the announcement of Sherman's condition, the chances of the nanover team seemed far from bright, and it was only through the sterling work of "Jess" Hawley in the dashes that it was enabled to pull out in the lead. ...e proved the individual star of the meet, totalling 15 points by firsts in both dashes and the discus.

Capt. Gilbert Horrax of Williams was second, securing 12 1-2 points for the Purple. He led Johny Mayhew of Brown by several yards in the race over the high barriers, and tied with Palmer of Dartmouth for initial honors in the high jump, took second in the broad jump, and third in the pole vault. Kelley in the 100-yard dash and Stevens a close second. Throughout the last in the longer dash, also did good work for Williams.

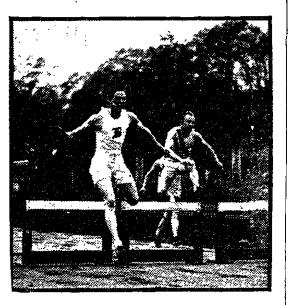
Although the trial times were necessarily slow, the finishes in the 100yard dash, the first event of the prowith Robson of Weslevan and Hawley of Dartmouth coming through the last 20-yards abreast, was declared a dead heat. The final was a beautiful race, Hawley taking it from Robson at the tape by inches. Kelley of Williams and Pinkett of Amherst crossed the line almarkably fast going on the wet track.

Capt. Horrax gave a neat performance but one hurdle, and leading at the fin-

New England Intercollegiate track and Marble of Brown. Smith of Maine crossed the line a poor fourth, limping from a sprained ankle.

Hawley came across the line winner in the furlong dash about as he had over team, 27 by the Institute, while done in the 100, Kelley, Williams' fast man, taking second place from Alexander, his team mate. Seligman, the only Tech man in the finals, placed fourth.

> Of the running events the half and the two mile, both won by Tech men were the best races of the day. In the shorter event it was only the headwork of P. D. White that won the race for Technology. Assuming the lead by a pole position, White was passed at the end of 200 yards by Fortier of Maine who held his position until the last turn, when with a remarkable exhibition of head work and a wonderful sprint for the finish, White regained his



at the last of the 220 yd Hurdles

position and crossed the tape abreast and slightly ahead of Fortier.

The other star event of the day was the two mile which was won by Howland, Greene of Brown taking second. At the start Howland took the lead, soon after the start and held it till the sixth lapp, when he was passed by Greene. The order of the leaders at the end of these laps was: Ist quarter, Howland, Clark, Greene; 2nd quarter, Howland, Clark, Greene; 3rd quarter, Howland, Greene, Clark; 4th quarter, Howland, Greene, Clark: 5th quarter, Howland, Greene, Clark. During the sixth quarter Greene sprinted and took the lead from Howland, holding it to 50 yards from the finish, when by a great sprint. Howland made up 55 yards and broke the tape a winner. Greene making two heats Watkins and McCarthy held fourth and fifth respectively. Howland's wonderful sprint for the tape in this race was probably the most exciting event of the meet.

Walker, captain of the Dartmouth delegation, bruised an ankle and was unable to finish.

Colbath of Bowdoin took the lead at the start of the mile and held it easily until the end of the first malf mile. Soon after this point had been passed, Watkins sprinted and overtook him. the two men running abreast until within 200 vards of the finsh, when Colbath sprinted for the tape and Technology, third (121 ft. 11 1-4 in.); crossed about fifteen yards ahead of Lewis, Darfuncuth fourth (113 ft. 2 in.). Watkins, who crossed the line second. beating Merrihew of Vermont by about

fourth. The time in this event, 4 35 4-5, was but 4 2-5 seconds slower than the record for the track, a very good performance considering the condition of the weather and track.

In the 440, Bacon of Wesleyan took the lead soon after the start and held it throughout the race, winning in 53 seconds flat. Salisbury showed up well in this event, being defeated for a close second by Schwartz of Tufts by the narrowest of margins, no daylight showing between the two as they crossed the line. Of the rest of the field which followed a little behind the first three, Littlefield of Maine showed the best speed and took an easy fourth.

In the field events Amherst showed up strong, taking a first, three seconds and a third.

Kilbourn of Amherst put the shot out 40 ft. 2 1-2 inches, taking first from his colleague, Kooyumjian by but threequarters of an inch. Newman of Brown and Chamberlain, M. I. T. tied for third with a put of 38 ft. 2 1-2 inches.

The high jump resulted in two ties, Palmer of Dartmouth tying Horrax of Williams for first, with a jump of 5 ft. 9 1-4 inches, while Dalrymple and Allen both of M. I. T. tved for third at 5 ft. 5 3-4 melies.

The broad jump resulted in five points for Durtmouth, Sherman's jump of 21 ft. 3 3-4 inches taking first from Horrax, winiams' versatile athlete by barely two inches.

The summary:

100-yard dash-First heat won by Baldwin, Amherst; Bacon, Wesleyan, second. Time 11s. Second heat, dead heat between Robson, Wesleyan; and Hawley, Dartmouth. Time 10 4-5s. Third heat won by Pinkett, Amherst; Kelley, Williams, second. Time, 10 4-5s. Final heat won by Hawley, Dartmouth; Robson, Wesleyan, second; Kelley, Williams, third; Pinkett, Amherst, fourth. Time, 10 2-5s.

One mile run-Won by Colbath, Bowdoin: Watkins, Technology, second; Merrihew, Vermont, third; Wells, Brown, fourth. Time. 4m 35 4-5s.

120-yard hurdles--Won by Horrax, Villiams; Mayhew, Brown, second; Marble, Brown, third; Smith, Maine, fourth. Time, 16 1-5s.

440-yard dash-Final heat won by Bacon, Wesleyan; Schwartz, Tufts, secend: Salisbury, Technology, third; Littlefield, Maine, fourth. Time, 53s.

880-yard run—Final heat won by White, Technology; Fortier, Maine, seeond: Baxter, Dartmouth, third; Lester. Williams, fourth. Time, 2m 2 3.5s.

220-yard hurdles-Final heat won by Edwards, Bowdoin; Mayhew. Brown, \mathbf{second} ; Stevens. Williams, third; Knight, Maine, fourth. Time, 27s.

Two mile run -Won by Howland, Technology: Greene, Brown, second; Colbath, Bowdein, third; Watkins, Technology, fourth. Time, 10m 2 1-5s. 220-yard dash -Won by Hawley,

Dartmouth; Kelley, Williams, second; Alexander, Williams, third: Seligman, Technology, fourth, Time, 23 3-5s.

16-lb. shot put-Won by Kilbourn, Amherst (40 ft. 2 1-2 in.). Kooyumjian, Amherst, second (40 ft. I 3-4 in.).

16-lb, bannner floor Won by Warren, Bowdoin (129 ft. 2 1-4 in.); Smith, Amherst, second (126 ft.); Metcall,

D'seus throw-Won by Hawley, Dart-(Continued on page 3.)

THE TECH

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Monday, May 24, 1909

The Tech. Volume 29, announces with pleasure the following appointments to the board of the daily Tech for next year: Editor-in-chief, Holman Isaac Pearl 1910; managing editor, Richard Howland Ranger 1911; business manager, Norman DeForest 1911; circulation manager, Donald Nichols Frazier 1911; athletic editor, Walter Herbert Hildebrand 1911: societies editor, Dudley Clapp 1910; Institute and exchange editor, fiarold Martin Davis 1911; associate

editors, Wellesley Joseph Seligman 1911, Joseph Ignatius Murray 1912, George Edward Hodge 1911, Stacy Collins Bates 1911, Gerald Marcy Keith 1912, and David Saint Pierre Gaillard 1911; news staff, Edmund Burke Moore 1912, Nathaniel McLean Sage 1912, Eugene Stewart Anderson 1911, John Ahlers 1910, Louis Sebastian Walsh 1912, Andrew Lawrie Fabens 1910, Kenneth Neil Wildes 1912, Ernest Walter Davis 1912; advertising staff, Leslie Gordon Glazier 1911, Sidney Carlisle Neff 1912, Frederick William Barker 1912, Hamilton Merrill 1912, Royal Miner Barton 1911, William Orr Whitney 1911; circulation staff, Alexander Woodward Yereance 1911, and Henry Donald Kemp 1912.

COM PANY "A" DINNER

Majors Bigelow, Wheeler, Rowe, and Captain Anderson Speak

Forty members of Company A assembled around the tables in the Union, Saturday night to celebrate their victory over the rest of the battalion.

Adjt. J. A. Herlihy 1911, who has had charge of the affair presided. After a hearty meal on the battalion, the diners drew back their chairs and were entertained by a number of good speeches. Captain Anderson of the Company, Cadet-Major Rowe and Majors Wheeler and Bigelow of the faculty were the speakers of the evening.

The dinner is an annual affair given to the winning Company by the prize drill committee from the profits of the Interscholastic Prize Drill. This is the last dinner that men from 1912 will have as freshmen.

COMMUNICATION

Editor of The Tech:

It is very seldom indeed that one sees a professor or instructor in the living room of the Union. It is not much oftener that they are seen in the dining room either.

Personally I believe that we fellows can get just as much from the right kind of a teacher outside the class-room as we can get inside. And our Tech profs. are the right kind. One finds this to be true especially after a few minutes' conversation with them. Many of the fellows who do know them socially say that this contact with older, experienced and broad-minded men has been of great benefit to them. MAN proves a Dr. Jekyll.

If our professors whom we know almost altogether as lecturers only, will spend a little time in the Union as often as possible, particularly at noon, they will find tasks far easier than before. The fellows will enjoy their work more and everybody will be benefited. It is true that we undergraduates will get the lion's share of the benefit, but it seems to me that the professors should be willing to sacrifice themselves a little for the sake of a better social life here at the Institute.

It is to be regretted that many teachers and students find the dining room so unsatisfactory. Were it otherwise, the problem of which I have spoken would be far easier to solve. This year, however, has been largely

experimental, and next year let us hope that the restaurant of the Union will be such as to attract both professors and students, and thus assist very materially in increased contact between the two in the social room upstairs.

> Yours respectfully, H. M. Davis 1911.

BIOLOGICAL THESES

Biology is coming to have such a direct bearing on sanitation and other fields vital to the health of humanity, individual and collective, that thesis investigations along biological lines are of great importance. The following subjects for theses have been given out in

The Bacteriology of Condensed Milk. Robert N. Hoyt.

Biochemical Characters of Streptococci from the Human and Animal Intestinc. George T. Palmer.

The Extent of the Bacteriological Pollution of the Air by the Act of Speaking. Elmo A. Robinson.

An Electrolytic-Conductivity Method for the Determination of Sulphates in Water. Albert F. Stevenson.

A Statistical Study of the Effect of Illuminating Gas on Public Health. Franz Schneider, Jr.

Prof. Charles B. Richards, head of the department of mechanical engineering of the Sheffield Scientific School for the past twenty-five years, will resign in

Two carloads of material for the University of Pennsylvania exhibit at the Seattle Exposition have been shipped and another carload will go early in

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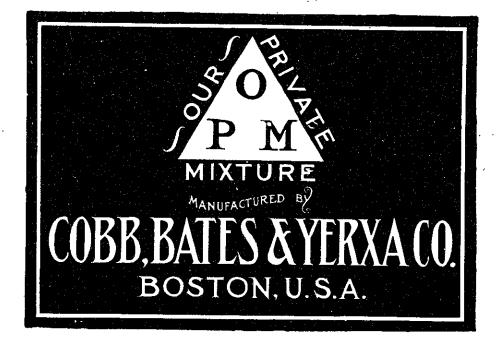
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RESEARCH WORK

Study of Efficiency of Heat Insulating Substances

Several pieces of research have been carried out during the year in the Laboratory of Heat Measurements with a view to determining the relative efficiency of a considerable number of heat insulating substances notably the varieties of concrete. The question of the necessary thickness of concrete to insure adequate fire protection depends very much upon the nature of the concrete as regards the action of hydraulic cement and the kind of sand and rock with which it is made.

A systematic study of a large number of the mixtures in practical commercial use has been carried on by means of electrical methods which have been originated in the Laboratory for this work. The variation in insulation resistance with the temperature is found to be considerable for most substances and concrete proves to be no exception to this rule.

Similarly, the increasing demand for cold storage installation has led to the production of a considerable number of new commercial products which are used for insulating cold storage equipments. the second these has been undertaken systematically with a view to determining the essential quality of the various substances which makes them efficient as thermal insulators.

A study of the value of concrete as a protection from electrolysis by stray; currents is being carried on in the Laboratory, tests which are to run for a year or more having been started with a view of studying the methods of preventing the electrolysis and subsequent High jump-Dartmouth 4. M. I. T. 3. weakening of the lower portion. With these pieces of research an elaborate transformer, which may be adjusted with the greatest precision and facility to give alternate supply of widely varying voltage and current, has been installed and has added much to the facility with which this experimentation has been carried out.

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INTERCOLLEGISTES (Continued from page 1.)

mouth (119, ft. 2 in.); Kooyumjian, Amherst, second (113 ft. 7 1-2 in.); Kilbourn, Amherst, third (106 ft. 10 in.); Hanna, Wesleyan, fourth (102 ft. 1 lt-4 in.).

High jump-W. Palmer, Dartmouth, and Horrax, Williams, tied for first (5 ft. 9 1-4 in.); Dalrymple and Allen, Technology, tied for third (5 ft. 5 3-4 in.). Palmer won medal on toss-up.

Broad jump-Won by Sherman, Dartmouth (21 ft. 3 3-4 in.); Horrax, Williams, second (21 ft. 2 in.); Atwood, Bowdoin, third (20 ft. 11 in.); Mayhew, Brown, fourth (20 ft. 7 1-2 in.).

Pole vault-Won by Holdman, Dartmouth (11 ft. 6 in.); Allen, Technology, second (11 ft. 3 in.); Horrax, Williams, third (11 ft.); Salisbury, Technology, and Jenks, Dartmouth, tied for fourth (10 ft. 6 in.).

Summary by points: 100-yard dash-Dartmouth 5, Williams

2. Amherst 1, Wesleyan 3. One mile run-M. I. T. 3, Bowdoin 5,

Brown 1. 120-yard hurdles-Williams 5, Brown 5, Maine 1.

440-yard dash-M. I. T. 2. Wesleyan 5, Maine 1. Tufts 3.

880-yard run-Dartmouth 2, M. I. T. 5, Williams 1, Maine 3. 220-yard hurdles-Williams 2, Bowdoin

5, Brown 3, Maine 1. Two mile run-M, I, T, 6, Bowdoin 2.

Brown 3. 220-yard dash--Dartmouth 5, M. I. T. 1. Williams 5.

Shot put—M. I. T. 1 1-2, Bowdoin 1 1-2, Amherst 8. Hammer throw—Dartmouth 1, M. I. T.

2. Bowdoin 5. Amberst 3. Discus throw—Dartmouth 5, Amherst 5,

Wesleyan 1. Williams 4.

Broad jump-Dartmouth 5, Williams 3, Bowdoin 2, Brown 1, Pole vault-Dartmouth 5 1-2, M. I. T.

3 1-2. Williams 2. Totals-Dartmouth 32 1-2, M. I. T. 27, Williams 24, Bowdoin 20 1-2, Amherst 17. Brown 13. Wesleyan 9, Maine 6, Tufts 3, Vermont 2.

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ESTIMATES GIVEN

COMPETITION CLOSES

Competition for Architectural Fellowship Closed at 7 P. M. Saturday

Saturday at 7 P. M., the contest for the Travelling Fellowship in Architecture closed and the problems were called in. The contestants were: C. C. Ford 1908, D. Chandler 1908, J. Mohn 1908, W. F. Dolke, Jr. 1908, R. Kibbey 1908, L. Pitkin 1907, R. J. Batchelder 1908, C. F. Baker 1907 and W. B. Kirby 1907.

The only conditions governing the contest were that competitors should have been in the Institute at least two years, one of which should have been in graduate work and that the work should have been done entirely without help or criticism.

The winner is given a year of study and travel in Europe at the expense of the Institute.

The problem this year was the design of a Union and group of three dormitories for a scientific university.

An engineering graduate of the University of Illinois won a prize for a woman's hat design.

NOTICES

TECHNIQUE 1910.- Copies on sale at the "Cage" at \$2.00 each.

SENIORS ATTENTION! - Second payment for the Portfolio is due now. The book will be out on May 27.

Any Sophs who still wish to enter the competition for Assistant Business Manager of "Technique 1911" meet in Room C, Union, Wednesday, May 25, at 1:30 P. M.

This is a chance for you to do something for 1911 and Tech.

WIRELESS TELEPHONY. - The Wireless Telephone Apparatus of Mr. Forbes will be in operation on Tuesday P. M., May 25, from 2 to 4 o'clock in the Research Laboratory, Room 6, Basement of Walker Building. All students interested are invited to be present at any time between these hours.

WIRELESS SOCIETY.—A lecture brimming full of information for the beginner in wireless telegraphy will be given by Mr. Crocker, Tuesday at 4:15 P. M. in 22 Walker, before the M. I. T. Wireless Society. All new men and those intending to errect a station this summer should be present. This will be the last meeting of the Wireless Society this year. The Society extends an invitation to all men interested in the science.

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SENIORS GATHER FOR CLASS DAY

Speeches by President and First Marshal, and Prophecy

GIFT TO INSTITUTE

Spread on Lawn After Exercises In Case of Rain will be In Eng. A and B

This afternoon at 2:30 P. M., the class of 1909 will hold its Class Day exercises in Huntington Hall. Following the addresses of the class president, James H. Critchett, and the 1st marshal, Maurice R. Schurff, the Class Prophesy will be read by Raynor H. Allen.

The Presentation Oration, delivered by James I. Finnie will follow, during which he will bestow on the better known members of the class some little token of the general sentiment of the class towards them.

The closing speech is that of Carl W. Gram, the Presentation of the Class Gift. As has been the custom in former years, the class will present to the Institute some gift, the nature of which will not be made known until this time.

The Class Day officers are James H. Critchett, class president; Maurice R. Scharff, 1st marshal; Carl W. Gram. 2nd marshal; and Harry E. Whitaker, 3rd marshal.

The complete program is as follows: Music,

Tech Orchestra. President's Address, James Hamilton Critchett. 1st Marshal's Address, Maurice Roos Scharff. Music,

Tech Orchestra Class Prophecy, Raynor Huntington Allen. Presentation Oration. James Irving Finnie. Music,

Tech Orchestra. Class Statistics and History, Garnett Alfred Joslin. Presentation of Class Gift,

Carl William Gram. Following the exercises, the Class Spread will be held on the lawn between the Rogers and Walker buildings. In case of rain, the spread will be held in the drawing rooms in Engineering A and B.

1909 COMMENCEMENT

At 2:30 o'clock tomorrow afternoon the succesful candidates for degrees will receive their diplomas from the President in Huntington Hall. The men will meet in the morning for full instructions, and will gather again at 1:45 for the

Abstracts of representative theses will be read by representatives of each course as follows:

Course I, Civil Engineering-An Investigation of the Efficiency and Character of Failure for Different Methods of Anchoring Reinforced Bars in Concrete-B. Y. Burgher.

Course II, Mechanical Engineering-An Investigation of the Effect of Spray Nozzles for Cooling Water-A. E. Hart-

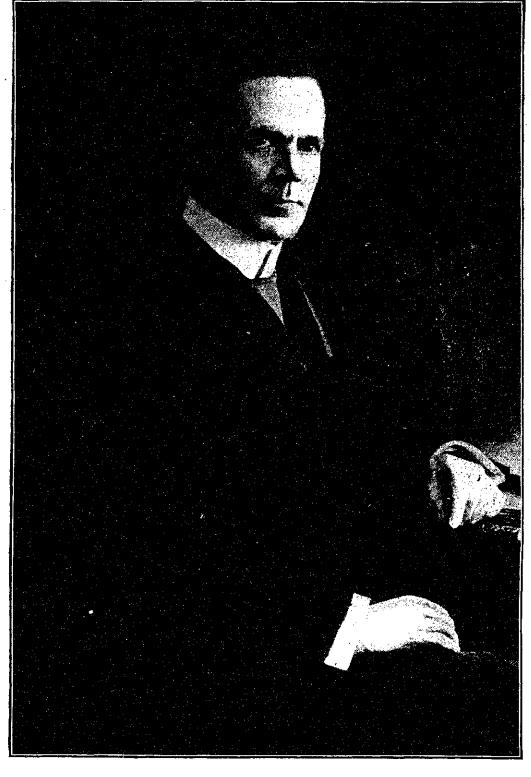
Course III, Mining Engineering-A Report on the Milan Mine-Harry

Course IV, Architecture-Design in the Gothic Style for a University Library—A. F. Menke.
Course V, Chemistry—An Investiga-

tion of the Defects in Single Enamel Coatings on Sheet Steel-J. A. Christie. Course VI, Electrical Engineering-A

Study of the Relative Advantages and Disadvantages of Alternating and Direct Current Systems for a Fortification the suburbs of the city. It will be Plant for the Artillery District of the necessary to have tickets, which can be Chesapeake, Fort Monroe, Virginia-Capt. C. C. Carter, U. S. A.

(Continued on page 10.)



PRESIDENT RICHARD C. MACLAURIN

Every event, RAIN or SHINE, except Automobile Trip.

Monday, June 7.

10:30 A. M.—Inauguration of Dr. Maclaurin. Symphony Hall, 3:30 P. M.—Automobile Excursion for Out-of-Town Alumni and Guests. 8:30-10:00 P. M.—Governor and Mrs. Draper receive Alumni and their Friends at the State House. 9:30 P. M.-Jubilee Smoker, Boston City Club

Tuesday, June 8.

A. M.—Professors receive Former Pupils in their Departments. 12:00 M.—Go to Nahant by Steamboat; Shore Dinner by Classes; return at 5:00 P. M.

4:00-6:00 P. M.-Mrs. E. S. Webster Gives Reception to the Ladies. 7:45 P. M.—Tech Night at the Pops., Symphony Hall. 10:30 P. M.-March to Rogers Building and cheer.

Wednesday, June 9.

9:15 A. M.—Harbor Excursion to Nantasket; Luncheon; Class Stunts in Amphitheatre; return at 4:30 P. M. 7:00 P. M.—Grand Banquet in Symphony Hall.

OFFICIAL PROGRAM GRAND ALL TECHNOLOGY REUNION

Inauguration, Monday, June 7, at 10:30 A. M.

Automobile Trip, Monday, June 7, at at 6 P. M. 3:30 P. M.

Automobiles will rendezvous at Copley Square, and Tech men and guests living more than forty miles from Boston are invited to make a trip through secured at headquarters. The automobile which are at the disposal of the committee will be designated by a knot

of cardinal and gray ribbon. Members of the committee will be on hand to assign guests to automobiles. Return

Reception by Governor and Mrs. Draper, Monday, June 7, 8:30 to 10 P. M.

A reception by Governor and Mrs. Draper to alumni and friends of the Institute will take place at the State House on the evening of June 7, from 8:30 to 10 o'clock.

The reception will be a brilliant one (Continued on page 4.)

INAUGURATION OF PRES. MACLAURIN

Imposing Ceremony Held in Symphony Hall Before Vast Crowd

MANY NOTABLES SPEAK

In His Inaugural Address "Prexy" Defines His Ideas and Creed as an Educator

Another period of Technology advancement was started this morning by the inauguration of Richard Cockburn Maclaurin as President of the Massachusetts Institute of Technology.

The first address was by Mr. Frederick P. Fish for the Corporation, who welcomed and encouraged the President in his new obligations.

Governor Eben S. Draper then extended the welcome of the State to the new leader of this very important branch of education in the Commonwealth.

Dr. Pritchett spoke of the effectiveness of the Institute and the great opportunity of the Institute to do good just as the Carnegie Institute does for the whole country.

The program was as follows:

Toccata and Fugue in D Minor for the J. S. Bach Wallace Goodrich.

Invocation,

Right Reverend William Lawrence. Introduction.

Frederick P. Fish, Member of the Corporation. Address,

His Excellency Eben S. Draper, Governor of the Commonwealth. Address,

Henry S. Pritchett, President of the Carnegie Foundation for the Advancement of Teaching.

James P. Monroe. Former President of Alumni Association.

Address,

Address.

Right Honorable James Bryce, Ambassador from Great Britain. Address,

Arthur A. Noyes, Chairman of the Faculty.

Ode,

"The Institute."

Inaugural Address,

Richard Cockburn Maclaurin. Toccata in F Major, for the Organ Bach Wallace Goodrich.

President Maclaurin's inaugural address and the address of Dr. Noyes given today may be found in other columns of this issue, beginning on the next page.

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THE TECH

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Printed by Old Colony Press, Boston.

Monday, June 7, 1909

Greetings!

"Macnology, Techlaurin."

Welcome to our city!

The Tech a daily next year! Support

"We are happy!" Don't forget that; it will help to make this the greatest Reunion ever held in the Hub.

The proposed trip for the Musical Clubs next year is a commendable innovation. This feature will mean not only increased interest for the undergraduate, but a valuable advertisement for the Institute among the colleges and preparatory schools of the Middle West.

The big business question of this week, corresponding to that of the Harvard merger of the last Reunion, is the question of a new site. The undertaking is quite large, and if successfully pushed through both as to selection and subscriptions, the second Grand All-Technology Reunion will have fully accomplished its business obligations.

The mission of this issue of The Tech is, indeed, a huge one, but we trust that it has been accomplished. To all we extend our heartiest thanks for their help in furthering the development of Technology, and our sincerest wishes for a brilliant future; to the alumni young and old of the Institute who have assembled in this hour of her greatness, to the men who will be graduated tomorrow into that loyal association of former students; to the juniors, sophomores and freshmen who are working and hoping for such distinction: to Dr. Arthur Amos Noyes, one of the whitest, most earnest and faithful college presidents that has ever served; and to Dr. Richard Cockburn Maclaurin, who takes over the administration today, with all prospects of a brilliant, upward career. And we repeat with Tiny Tim the words: "God bless us, every one!"

ALLEN TRACK CAPTAIN

Raynor H. Allen, well known from his ability in the high jump, was elected captain of next year's track team at the meeting held when the picture of the team was taken last Thursday. Allen is an enthusiast in anything he sets out to do and if he applies to his new position all the energy he is capable of will make an excellent leader. Ray has been identified bank or a large corporation; or in more with many of the undergraduate activities and has always made good. There is a lot of fine material at Tech for a and sacrifice in public service, when in winning team next year but Allen will order to meet his duty a man must have his work cut out for him in the withstand popular opinion or lose a difficulty in getting Tect men to realize part of his income. Christ appeals from that they are needed in athletics and the corrupt habits of His day to ancient that good, wholesome, outdoor exercise traditions, and though living in a time is a great help to efficient work in the of peace, was killed in the service of His it so long their own wav that they class room.

SENIOR CONCERT

Saturday night the musical clubs gave their final concert, followed by a dance, to the seniors. The program was very well rendered and more than came up to the expectations of those who have appreciated the good work of the clubs this year. The program was as follows:

Bullard Swords Out for Charlie, Glee Club. National Emblem, Bagley Mandolin Club. Sweet Sixteen,

Banjo Club. Selection,

Glee Club. Spanish Waltzes, Waldteufel Mandolin Club.

Cello Solo, Selected Mr. Lawrence C. Shaw. Medley, Aranged by Rice Banjo Club.

Alma Mater Technology, Kyle Glee and Mandolin Clubs.

These musical numbers were followed by fourteen dances and three extras. The Medicine Man from the Tech Show was a popular favorite of those who like barn dancing.

1909 CLASS DINNER

Class spirit ran high among the 180 men at the 1909 Senior dinner at the American House last Thursday evening. M. R. Scharff as toastmaster did most of the speaking, but Messrs Critchett and Nisbet also held the floor at times.

The chief business of the evening was the election of a graduate secretary for the coming yar. Carl W. Gram was chosen for this position by a fair ma-

Lewis D. Nisbet then spoke on the class stunt for the Nantasket trip. He aroused considerable enthusiasm over his plans and many men volunteered for the various positions to be filled.

Toastmaster Scharff described in cotail the arrangements for the Baccalaureate Sermon Sunday afternoon, the Class Day exercises, and the Commencement exercises.

The men then lined up in fours and marched in a body to Rogers Building, where Prof. Merrill delivered the graduation notices to the candidates. After that a few men went to the Union, but the gathering soon broke up.

BACCALAUREATE SERMON

At the Baccalaureate Sermon at Trinity on Sunday afternoon Bishop Lawrence brought out the following points: I ask you to turn to the life of Christ for a study of a few essential conditions of patriotism.

The first condition is suggested in the words, "And he came into His own country." Here we find a suggestion of the attachment of Christ for the scenes, associations and traditions of His own country. Is there a biography of any man so short as the sketch of Christ given in the Gospels, which has in it so much local color? Clearly the fields, mountains, and lakes of Palestine appealed to-Christ. The scenery and the atmosphere were a part of the very texture of His character. He was of the purest lineage. From the Gospel story we can almost reconstruct the map and natural features of His country.

A second essential condition of true patriotism is a sense of responsibility in doing well and faithfully one's day's work. This stands before what is commonly called our duty to our country; voting and taking our part in public service; for it is, is it not, the industry, ability and faithfulness of the great body of citizens,—men, women and children in meeting the daily demands of life that build up the wealth, institutions, and character of a people.

The third essential is that of public service. To this every citizen is bound to give some fraction of his life. It may be in work for the town as selectman; then, whatever be his professional or on boards of charity: or for large skill, he is no more than an ill-edunumbers of people, as the director of a strictly public service. There are times when the demand comes for courage people.

True patriotism recognizes the rights Levites in charge of the ark of culture of other nations; false patriotism says, "My country, right or wrong." This unwarrantable intrusion not worthy of is the slogan of barbarism; we have got beyond that now. We have learned due time the champions of modern licin modern society that the rights of the individual are best protected by recognition of the rights of others; the nations are now learning that the rights of individual nations are best protected by the recognition of other national rights. In this higher conception of patriotism our country leads. The story of the relation of the United States to Cuba in the past few years and of her remission to the Chinese of a large part of the indemnity are instances that speak to other nations in strong terms of the worth of justice among nations.

Finally, beneath the nation stands the character of the people; and the source of character is faith in truth, love and justice, faith in God as revealed in His Son.

DR. MACLAURIN'S INAUGURAL ADDRESS

My first duty is to express my appreciation of the honor conferred on me by election to the Presidency of this great Institute and my thanks to those representative citizens who have so warmly and so gracefully bidden me welcome to the inspiring task that lies before me. The task, as has been suggested, is no easy one, and I should be oppressed by my inability to cope with it, did I not feel strong in the loyal and enthusiastic support of the Faculty and the alumni, indeed of all who have the welfare of the Institute at heart.

Now on an occasion such as this I might perhaps be expected to say something as to the policy of the Institute and the plans for its future development, in so far as I have any influence on the formation of such a policy and such plans. I refrain from doing this, however, if for no other reason than that I recognize that promise and performance are often somewhat different things; and I do not wish to invite any inconvenient comparisons in the future. All that seems necessary to do is to assure you that I shall do my best, and that as I heartily approve of the broad lines of the policy that has been established by my very distinguished predecessors, any marked departure from that policy will not be due to my initi-

As, however, I am necessarily somewhat of a stranger to you, it seems not inappropriate that I should give some indication of my creed as an educator, and so reveal the ideal that I should like to see made real in this Institute. The creed has at any rate the merit of brevity: it can easily be stated for present purposes in three or four articles.

I. The first article is one that is common to almost every modern creed the savage in the face of a modern ucation is to fit men to deal with the affairs of life honestly, intelligently, and efficiently. That, like many another commonplace in creeds, is one that is almost deliberately ignored in much of common practice. It should be applied thoughtfully and rigorously as a test of every element in the scheme of your educational system. We must try to fit man for life and for life that is as abundant and complete as possible. We must have due regard to professional skill but, especially in such an Institute as this, must we avoid the danger of supposing that we have to think only of a man's professional equipment. Clearly no man can be merely an engineer, or an achitect, or a professor. He owes other duties to society that are in no sense inferior. In the relations of domestic life, or in the larger family of a city or a state, he must constantly move and act. In these spheres powers must be exercised that may require cultivation and training just as much as any others; and if a student has not brought them up to a reasonable standard of excellence. cated man.

II. My second article is that in the higher education of a large and increasing section of the community, science should play a very prominent, if not a leading part. Many a fierce battle has been waged during the operation of scene shifting in the great theatre of education. Those who were schooled exclusively in the "older learning" had come naturally to regard themselves as

and to look upon any criticism as an their serious attention. However, in erature and humanism became strong enough to issue a challenge and in the aght that ensued many a hard blow had already been struck, when the fray was complicated by the advent of a somewhat ragged army with "modern science" on its banner. The noise and din of the battle have well nigh dia away by this time-although occasionally a belated combatant fires a shot, or shouts derision at an enemy-real or imagined. In general, however, it has come to be recognized as absurd to set up a claim to the monopoly of culture—if I may be permitted to use that much-abused word widely for breadth and openness of mind and sanity of judgment. Native capacities and tastes vary enormously and culture may be reached by many roads. Admitting this quite frankly, I repeat that science should play a very important part in the education of a large and increasing section of the community. In saying this, I am not now thinking of the specialist, to whom science is a necessity or his profession. I am thinking rather of any one who is to take an active and intelligent part in the world of affairs today—whether in business or in public life. Science has already profoundly changed the conditions of our life and it may not be so very long until its method and its spirit permeate our modes of business and of government. It must even now be very difficult for a man who has not acquired the scientific habit of mind by serious scientific study to free himself entirely from medievalism and be a really modern man. For we have to remember that "not only is our daily life shaped by science, not only does the prosperity of millions depend upon it, but our whole theory of life is being profoundly influenced, consciously or unconsciously, by the general conceptions that science has forced upon us." Apart from this, it is scarcely nec-

essary to emphasize the claims of science in an Institute like this which devotes so large a share of its attention to the training of men to deal successfully with these great problems of production and distribution which the energy of a great industrial nation makes of paramount importance. Today it is common knowledge that those are mainly scientific problems, although half a century ago when this Institute was founded it was only the far-seeing that had any glimpse of this, and very few among these that had any adequate conception of the mighty change that science would effect in the industrial problems of the world. Where such matters are concerned, energy, courage, and doggedness are no longer enough as they once were to win the fight. With science they profit nothing and are no more availing by themselves than is the dautless courage of

The quickness with which the differ-

ent nations grasped this vital fact might be used as a touchstone of their. intelligence, and it is almost pathetic to observe the bewilderment of some of them who are just awakening to the knowledge thatthey must even now face a new heaven and a new earth. Massachusetts may congratulate itself on having been amongst the first to foresee the change, but I hope that this will not induce any disposition to rest and be thankful for the wisdom of our forefathers. Here it can not be necessary to remind you that the terrible battle of competition between men and between nations is no passing phenomenon. It does not depend on conditions that are transitory, but, on the contrary, on those that are permanent and that must always make for keener competition. The only chance of survival is resolutely to throw away all weapons except the best (i. e., the most scientific); and the only hope for long life is not merely to be strong and well armed, but to be able to keep in that condition. For this end we must train our young men with a view to the future, and as no one can foresee what a generation will bring about, our only hope of safety is to imbue them thoroughly with those fundamental principles of science and its applications that are permanent and that can be put to any need that may arise and not to take up too much time over those details of the professional practice of today that may not improbably be antiquated tomorrow.

III. Next we should constantly bear (Continued on page 6.)

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Puget Sound International Railway & Power Company
The Electric Light and Power Company of Abington and Rockland
Baton Rouge Electric Company
Blackstone Valley Gas & Electric Company
Pacific Coast Power Company

Houston Electric Company

OFFICIAL PROGRAM

(Continued from page 1.) and will be largely attended. No tickets will be required. Formal dress.

Jubilee Smoker, Monday, June 7, at 9:30 P. M.

The two upper floors of the Boston City Club will be placed at the disposal of the committee at 9:30, although we can assemble earlier if they desire. Refreshments will be served, and the Tech orchestra will furnish music. There will also be special entertainment furnished by the Committee.

As you go upstairs, exchange your ticket for a tag, which you will wear conspicuously. Dress optional. Tickets \$1 each, including refreshments.

Day of the Classes, Tuesday, June 8.

In the morning professors will be in their departments to welcome former Day of the Stunts, Wednesday, June 9, students. At twelve o'clock take steamers "General Lincoln" and "Governor Andrew" for Nahant at Otis Wharf, near Rowes Wharf. Arriving at wharf, exchange your ticket for identification tag. The tags vary in color and correspond with colors adopted by the hotels at Nahant, indicating where the various classes dine. The numerals on the tables will show the location of the classes. The tags worn conspicuously will be accepted for transportation on the boat and for dinner at the hotel bearing the same color.

In case of rain the immense dancing pavilions connected with the hotel will allow the full programme to be carried out. Dress very informal. Tickets, including transportation and shore dinner, wili be \$2.

Mrs. Webster's Reception, June 8, 4 o'clock until 6.

Mrs. Webster will give a reception to the ladies at her home on Hammond the ladies will have tags of the same tick of 7:30 sharp. Street, Chestnut Hill, from 4 until 6. The trains of the Boston & Albany Rail- | meet them by going directly to the | way for Chestnut Hill leave at 3:20, refreshment rooms. It will be well to 4:10, and 4:35. At the station there bear this in mind, as there will probawill be barges and automobiles provided, by be three thousand people present. It will be a most inspiring sight, and although the distance is only threeeighths of a mile. There will be a special car on the train leaving Boston at nounce the beginning of the stunts. 4:10. The Ipswich Street cars cross Hammond Street about three-quarters 4:30 P. M., immediately after the of a mile from the house.

Pop Concert, Tuesday, June 8, at 7:45 P. M.

The classes will rendezvous at headquarters, Trinity Place, at 7:45 P. M. and march to the Pops by classes, the marshals to be on hand to start the classes at the right time. The class of 1908 will enter the hall first, followed by the classes in order up to 1868. Then will come Acting-President Noyes with escort, followed by President Maclaurin with escort. The class of 1909 will come in last and receive an ovation. At 10:30 the men will march to Rogers Building where the presidents will be cheered in succession, under the icadership of Edward M. Hagar 1893, president of the Northwestern Association of Chicago. Dress optional. Floor tickets \$1.50, balcony seats for guests

at 9:15 A. M.

The steamer "Myles Standish," capacity 2,250, will leave for Nantasket from Rowes Wharf at 9:15 A. M., and the "Nantasket," capacity 2,200, at 9:30. On arrival at the wharf exchange your ticket for a colored tag which you will wear conspicuously and which entitles you to transportation and passes you into the proper dining-room at the Atlantic House. Ladies and guests will please go to the Atlantic House directly from the boat.

Tech men will line up on the beach under their class banners, in command of Grand Marshal Colonel Charles Hayplaying and flags flying, the procession will march up the hill to the Atlantic House, where the ladies will have assembled. On breaking ranks the men will go directly to the dining-room havcolor as their escorts, they can best bly, and a bomb will be sent up to an-

The boats will leave Nantasket at stunts have been run off. Immense Hon. Charles Nagel, secretary of the

which will be used in case of rain.

Arrangements have been made for dressing rooms at Symphony Hall for the accommodation of those who may wish to dress there for the banquet Wednesday evening. Better arrange for arcssing-rooms elsewhere in town if you

baggage will be received by the committee at the Nantasket steamer, Rowes Wharf, Wednesday morning, checked and transported without charge to Symphony Hall or to any other point in the city proper where desired free of charge. On checking your baggage at the wharf see that it is clearly marked with your name and estination. if it is to be sent to Symphony Hall, mark it "Care Tech Reunion Committee, Symphony Hall."

The excursion will take place, rain or shine. The Nantasket excursion will be especially attractive for the ladies. Dress informal. Tickets, including transportation and luncheon, \$3.

Grand Banquet, Wednesday, June 9, at 7 o'clock.

Guests will assemble in the upper corridors of Symphony Hall at seven o'clock. The banquet will be served promptly at half-past seven. We make this announcement prominent because. although there will be at the most not over an hour and a half from the time of landing in Boston until we sit down to the banquet, it is absolutely necessary that we start on time, as the speeches must begin early enough so den. At the signal gun, with bands that those taking trains for out of town may hear them all,

Inasmuch as the banquet will be the most imposing function of the kind that Technology has ever had, we urge you to be on hand promptly, as the doors of ing the same color as their tags. As the banquet room will be open on the

Symphony Hall, the only large auditorium in Boston suitable for this purpose, will be crowded to its limit, and the galleries will be filled with guests. At 12:30 the bugle will sound assem- throughout the early part of the dinner there will be incidental divertisements, class cheers and Tech songs.

The speakers will be Governor Draper, Dr. A. A. Noyes, President Maclaurin,

tents will be erected on the grounds | Department of Commerce and Labor, Washington, D. C., and Samuel J. Elder of the Boston Bar.

There will be a table for professors and instructors, not Tech men. Tech men will please assemble in the upper corridors of Symphony Hall. The bugle will blow assembly when the doors are open. Dress formal. Banquet tickets \$4. Balcony seats for guests 50 cents.

HEADQUARTERS — Information in regard to the Reunion may be had at Headquarters, Tech Union, Trinity Place; telephone Back Bay 2941. Headquarters will be open until Thursday, June 10th, at 6 o'clock P. M., including Sunday. Validate railway tickets here.

Executive Committee—Edwin S. Webster, 1888, Chairman; Henry Howard 1889, Treasurer; I. W. Litchfield 1885, Secretary, M. I. T., Boston; Dr. Arthur A. Noyes 1886; Walter B. Snow 1882; Everett Morss 1885; Gov. Eben S. Draper 1878; Geo. W. Kittridge 1877; Theodore Robinson 1884.

Chairmen of Committees-Prof. C. F. Park 1892, Hospitality, Headquarters & Reg., M. I. T.; Prof. H. W. Gardner 1894, Decorations, M. I. T.; Prof. Wm. T. Sedgwick, Governor's Reception, M. I. T.; Franklin T. Miller 1895, Day of the Classes, 114 Federal Street; John A. Curtin 1892, Jubilee Smoker, 31 State Street; Leo Pickert 1893, Pop Concert, 16 New Street, E. Boston; F. H. Fay 1893, Harbor Excursion, 60 City Hall; C. C. Pierce 1886. Banquet, 84 State Street; Dr. C. D. Underhill 1887, Music, 160 Newbury Street; Prof. W. H. Lawrence 1891, Photographs, M. I. T.; B. C. Lane 1887, Transportation, 266 Devonshire Street; A. P. Underhill 1896, Automobile Excursion, 222 Columbus Avenue; S. E. Tinkham 1873, Invited Guests, 60 City Hall.

PHOTOGRAPHS.

The Notman Photographic Company, 3 Park Street, Boston, have been appointed official photographers for the Reunion. Orders for copies of the photographs of the different events may be left at Reunion headquarters or with the Notman Photographic Company. A panoramic view of the entire assembly

(Continued on page 13)

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DR. MACLAURIN'S ADDRESS

(Continued from page 2.) in mind that science and culture must in hand, science being studiel and taught in such a way as to make for that broad the mark of a really cultured man. I hope that it is not necessary to stop —for such a survival of medievalism must surely be very rare today. I take it that the root of culture (in any worthy sense of that term) is the possesend is a question on which there is sure which our forefathers often derived such real culture to be confirmed in this suspicion, and to lean towards the opinion be true, then it is vastly important, for it enables us to solve one of the most difficult questions that presents itself in education. We cannot indulge in highquestion is how to limit? The plausible and the popular solution is that a man should be guided by his aptitudes, and mine—his special calling in life. Here, I to me obvious that a man should try to keep closely to what will be most useful to him in life, the only qualification (and of course it is an important one) being that the adjective "useful" must not be construed in any narrow sense. It is owing to this qualification that it appears absurd to allow almost complete freedom of choice to a mere youth, whoe outlook on life is not wide enough to suggest the wisest choice. I see no reason, however, why a man should spend his time in so-called "useless" studies for the sake of mental discipline and culture, if he can

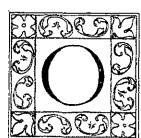
other direction. There may, of course, be several roads to his office, and it ciation with "practical" studies is one and liberal outlook on the world that is may be that the shortest is not the of the best things even for the so-called best, for it may bring him there out unpractical man who intends to deal of breath or otherwise so disabled that mainly with the most abstract reto argue with anyone who thinks that he is unfit for business for half the searches. Galileo made telescopes, Newscience is quite incompetent to the task morning. Especially when he is new to the city will he profit enormously by the companionship of an accomplished man attractions of the way. It is of course Institute and take account of the youthsuspect that the subject-matter of the fore the student. They must be men rank in Astronomy, in Chemistry, in Bistudy is far from the most important who can command the respect not only ology, and in other departments of learn-Institutes in Paris and Berlin, who neither in their international reputation as that is the how rather than the what men of science, nor in the esteem in of learning.

ness, then you will have some chance of there i comparatively little danger of edge can fail to recognize as all too directing their attention to its other as- this abuse of a thing so intrinsically common. In social matters tradition peets. And this suggests another pur- good in an Institute of Technology, is all powerful, and we are fortunate

gain these excellent things in studies pose that the Institute should serve. It Here, however, we need opportunities that are more "useful" in his calling, should train men to extend the bounds not only for athletics properly of extending them. I believe that assocessity of our being.

no more than I see why a business man of knowledge, not only in the applica- ducted, but for a healthy social life should not take his exercise in walking tions of science to industry, but in any amongst the students. Success in pracbe combined, i. e., the two must go hand towards his office rather than in some direction in which they see opportunity tical life is clearly not dependent wholly, or even mainly on knowledgeunless you use the term so widely as to include the knowledge of men and of the world. It is common experience here as in the older world that the men who make the greatest mark are often ton learned practical mechanics, Leibnitz those that were quite unhonored in the invented machines, Kelvin laid cables, schools. At Oxford or at Cambridge And so it should cause no surprise that they pursued "a little learning and who can direct his attention to the real when we bear in mind the size of this probably much more boating," but, whatever their shortcomings in the sion of an ideal broad enough to form highly important to have men that can fulness of its graduates (remembering class room, they received a wholesome the basis for a sane criticism of life. do this well, and so at the Institute and that only a small proportion of them and a manly training from the other What study is most conducive to this other similar places we must have men have yet passed middle life), we find influences that were brought to bear of high rank and wide outlook who can that its alumni have contributed a full in their social life. A great and learned to be much difference of opinion, but I keep the highest ideals constantly be share of pure scientific work of the first Cardinal of the Catholic Church (that church which has been so rich in men with profound human insight) said that element in the problem. We have only to of the students but of the whole com- ing. I hope that it will always be so, if he had to choose between sending a think of the unpromising materials from | munity in which they live-men such | but to make this possible a continuance | young man to a University which as are to be found at the best Technical of front rank men on our staff is a ne- made no provision for social life amongst its students, and gave its degrees to any person who passed an ex-But of coure there are other things amination in a wide range of subjects, of study that makes for culture. If this which they are held locally, nor in the than studies to be considered. Above if he had to choose between such a Uniemoluments of their office are one whit all we must preserve in our students versity and one that had no professor behind those in the more ancient seats the freshness and vigor of youth and or examinations at all, but merely see to it with all care that their nat- brought a number of young men to-We need such broad men as professors ural powers of initiative are improved gether for three or four years—if he flown schemes of general culture, for on our staff for the reasons that I have and not checked by our training. Out- had to determine which of the two here, as everywhere else, the avenue to indicated and because of the incalcula-side the class room we can do this best would be the more successful in trainsuccess is limitation. The practical ble value of breadth of view and free- by encouraging a rational system of ing, moulding, enlarging the mind, dom from prejudice to the leader in en- athletics and a rational social life. In which would send out men the better gineering and industrial pursuits. But | Xenophon we were told that "to ride fitted for their secular duties, which there are other reasons than these. It horseback and to speak the truth" would produce the better public men, by what those aptitudes should deter- is true that the first and obvious duty were considered the two essentials in men whose names would descend with of such an Institute as this is to train the education of a Persian gentleman, bonor to posterity, he would have no beleve that, for once, the plausible and men for certain professions, and partic- and I can well believe that many more hesitation in giving the preference to the popular is entirely right. It seems ularly for those professions in which elaborate modern systems of education that University which simply did nothscience plays a leading part. It should, are much less liberal. Fortunately it ing. Well, clearly we cannot make however, do more than this; it should is now becoming generally recognized architects and engineers by doing nothtake its share in the great work of get- that a sound body is the basis of a ing; work and hard work too, must alting the nation imbued with the scien- sound mind and of sound morals, and ways be the leading feature of a techtific spirit. For this purpose the schools that men play the game of life better nical institute: but I see not the slight. of applied science are strategic points for what they learn in manly contests est reason why we should not have all of the highest value. If you can show manfully conducted. It is of course de-the advantages of a rational social life people the "practical" value of science plorable, if true, that the cult of mere amongst the students and work as (in the narrow sense of that ill-used ad- athleticism seems to be eating like a hard as ever. Work is perhaps the one jective), if you can demonstrate that it canker into the college life of this coun-thing needful to check these abuses of makes for healthier and fuller life, for try just as of some older ones, but the social side of college life, which no greater prosperity and greater happi-there is comparatively little danger of one who speaks with any real knowl-

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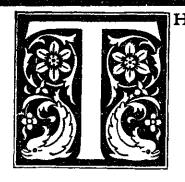
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The Massachusetts Institute of Technology

DR. RICHARD С. MACLAURIN.



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To be admitted to the first-year class, applicants must have attained the age of

seventeen, and must pass satisfactory examinations in Algebra, Plane and Solid Geometry, Physics, English, History, French and German, and must present teachers' certificates for one of a series of elective subjects.

A division of these entrance subjects between June and September or between two successive years is permitted.

Entrance examinations are held at the Institute in June and September of each year. In June applicants may be examined also by the College Entrance Examination Board in New York, Philadelphia, Chicago and many other cities in America and Europe. A circular stating times and places is issued in advance, and will be mailed on application.

Graduates of colleges and scientific schools are admitted, without examination, to such advanced standing as is warranted

by their previous training.

Graduate courses leading to the degrees of Master of Science, Doctor of Philosophy and Doctor of Engineering are also offered. Special Research Laboratories of Physical Chemistry, Applied Chemistry and Sanitary Science have been established. Correspondence should be addressed to Prof. A. L.

MERRILL, Secretary of the Faculty.

PUBLICATIONS

The Annual Catalogue (issued in December), the Report of the President and the Treasurer (issued in January), the Register of Former Students (issued in March), and any of the following descriptive circulars will be mailed free on application:

The Massachusetts Institute of Technology: An illustrated pamphlet describing the laboratorism of the Institute.

Circulars of the Departments of Mechanical Engineering; Mining Engineering; Physics and Electro-Chemistry; Architecture; Chemistry and Chemical Engineering; Biology;

Circulars in regard to Admission of Students from other Colleges; Summer Courses;
Advanced Study and Research; The Research Laboratory of Physical Chemistry;
Five-year Undergraduate Courses.

above all else at the Institute in having a tradition that is thoroughly wholesome. There is a tradition of seriousnes of purpose and hard work, and there is little or no tendency to set up a wall of easte which is not an inconspicuous feature in the college life of the older world and may perhaps be observed even here, and which, if allowed to stand, is a menace to true citizenship and true democracy.

Well, the recital of my creed is done. I have come to Massachusetts a stranger; but I scarcely feel like one so side. I recognize, of course, that this is their training. This diversity is, morenot a personal matter (or I should not over, advantageous in another respect, mention it here); but that the welcome just as the existence of our forty-six represents the good will of the commu-State governments makes it possible to nity to the great Institute of which we try important political experiments are all thinking today. I have had many without seriously affecting in the case opportunities elsewhere of learning of of failure the welfare of the country as its national and international reputa- a whole, so the existence of our numerfor private service. Born in a period of tional methods to be thoroughly tested unexampled national struggle, it has upon a limited scale, after which those gle that it has made for itself a unique tion for the greatness of soul of its founders, and for the pertinacity and in order that each may profit from the courage of those who have worked so steadily and so unobtrusively in the intervening years to maintain its great traditions and compel respect for it. Rogers who planned it, and Gov. Andrew who so warmly befriended it and who insisted so strongly that it should be started out on a broad gauge, were no ordinary men; and it is because I believe that the spirit of such men still lives in the community that I have every confidence that it will not now be allowed to languish through any narrow and unworthy view of its purpose and destiny.

DR. NOYES' SPEECH

"In welcoming Dr. Maclaurin to the presidency of the Massachusetts Instifute of Technology on behalf of its faculty, it seems appropriate that I take as the theme of my few remarks the ate type of education which experience be regarded as the main sources of high position which it has won for itform of education which that institution has shown to be effective, must not be liberal culture. Thus, in these respects self in the past."

tages, this is not to be regarded as re-characteristics of the Institute type. seeing unfavorably upon other systems of higher education. On the contrary, it is, I think, a subject for congratulation that the educational efforts of this country have not become conventionalized in a single direction or even in two or three directions. It is fortunate that our institution of higher learning are so diversified as to afford to young men and women with different aptitudes and with different aims in warmly have I been welcomed on every life a wide choice as to the character of tion, and I feel sure that it needs no ap- ous colleges, universities, and scientific peal from me to arouse this state to a schools with their differently organized sense of its value, for public as well as systems of instruction enables educabeen by a process of continuous strug- proved by the results to be the most successful can be generally adopted. It position. It is impossible to know its is important, to be sure, that closer history and not be stirred by admira- relations be established between the different institutions than exist at present. experiences of the other and thereby improve the details of its own system of education without sacrificing its essential features; and it is therefore auspicious for this institution that one of the speakers at these inauguration University, to whom in conjunction with the new president of the Institute, many opportunities will be afforded for cooperative effort in solving the educational problems of this State and country; and that another of the speakers is the president of the Carnegie Foundation for the Advancement of Teaching. which has adopted as one of its chief functions the better co-ordination of the work of the collegiate institutions of this continent.

"But, while recognizing the advantages of closer co-operation and better co-ordination, the still greater importance of courses on those subjects which through maintaining and developing each separ- the traditions of education have come to

has come to typify. If in doing so I overlooked. For this reason it seems give prominence to some of its advan-appropriate to consider briefly the

It is one of those characteristics that from the beginning to the end of the period of study a definite aim is kept before the student, and the character and sequence of his studies are prescribed in such a manner as will best lead to the desired end. The student selects at the beginning of his second year the profession for which he desires to prepare himself; but the faculty with its greater experience then determines in large measure the studies which are the best adapted to fit him for his life work. We believe that unlimited freedom of choice commonly results in superficiality instead of soundness of training, or in a narrowness of professional knowledge, instead of a breadth of culture.

"A second characteristic is that the courses of study at the Institute are planned in the belief that the three sides of education expressed by the words knowledge, mental training, and culture, must go hand in hand, each being kept steadily in view throughout the sis, however, is laid on the principle and of work must be the main object striven for in the earlier years of that period. The Institute holds, in the words of one of our great American psychologists, that "the man who has hand, it holds that the breadth of view and liberality of judgment which ization. constitute culture must be acquired gradually, as the student advances in dertaking by the cordial and energetic maturity and experience, and that this cooperation of his associates of the can be done more rapidly in his later Corporation and of the faculty and than in his earlier years, and more ef- of the members of its Alumni Aspersonal contact with his teachers than may feel confident that, among the by attendance at a variety of lecture institutions of higher learning, the

the system of education which the Institute typines stands in sharp contrast with the university system, of which the principle is that the purely cultural education of the college shall precede the strictly professional training of the graduate school.

"Finally, in conformity with these ideals, there have been developed at the Institute conditions of student life from which there has resulted a more duly proportioned division of time and interest between the studies and the social and athletic activities of students than prevails at many colleges. The standard of scholarship which the faculty demands of its students is inconsistent with an excessive devotion to outside pursuits and with undue subordination of the intellectual to the phsical and social interests. Yet the student life of the Institute is at the present time so developed as to afford abundant opportunity for recreation and good fellowship, and for the cultivation of athletic. literary, artistic and professional activities. Indeed, the soundness of its student life and the helpful progressive spirit of its student body are propwhole period of study. Especial emphasierly counted among its chief advantages.

"This characterization of the Institute that the training of the mind and the will, I think, serve to show that scienformation of sound habits of thought tific schools of its type occupy a unique position in the American system of higher education and that they represent certain educational ideals whose fuller development is of great importance to the welfare of this country. daily inured himself to habits of con- We are today assembled to take part centrated attention, energetic exercise in the inauguration as president of one exercises is the president of Harvard of will, and self-denial in unnecessary of these institutions of the man who is things, will stand like a tower when to serve as the leader in its developeverything rocks around him and when ment, of a man who has shown himhis softer fellow mortals are winnowed self to be in hearty sympathy with the like chaff in the blast." On the other ideals of the Institute and who will strive earnestly for their fuller real-

"Supported, as we will be, in this unfectively by individual instruction and sociation and of the student body, we

> Massachusetts Institute of Technology will continue to hold in the future the

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HUNTINGTON HALL FRIEZE COMPLETED

Fifth Year Architects Add **Artistic Representations** of Science

With the completion of the panels now being done by the fifth year students in Architecture, the Huntington Hall frieze will have been finally restored. The attempt to restore, or rather, recall, the original freize was begun in 1905, and as fast as funds have been available the work has been pushed along.

This year ten large panels have been done, all the work being designed and executed by the fifth year men, under the direction of W. Felton Brown, instructor in Life Class. Two smaller panels, containing only single figures, were worked up by two members of the fourth year class.

These new panels were to a certain degree inspired by the original panels occupying the same spaces in Huntington Hall, but even where the original composition was closely followed the attempt has been not to restore the To photogravures, old freize, but rather to recall it.. It has been said that in this wark the Institute has been reproducing itself and although some of the panels may not seem at first glance to represent work actually being done at Technology, processes in which Tech men will be actively engaged throughout their professionaly careers have been set forth on the canvas to reflect the spirit of true craftsmanship.

The panels completed this year are: on the west wall, from back to front:
"Iron Casting," by J. T. Mohn; "Shipbuilding," by Deland Chandler; "Free-hand Drawing," by Cecil F. Baker; "Stone Cutting," by R. J. Batchelder; and a small panel "The Carpenter," by F. Burton '09. On the east wall, from back to front, are: "Iron Casting," by W. F. Dolke, Jr.; "Concrete Mixing," by C. C. Ford; "Landscape Architecture," by Miss M. K. Babcock; "Glass Blowing," by C. C. Ford; and another during a renovation of Huntington Hall, the center of the front wall of the hall.

TECHNIQUE 1910 MAKES A PROFIT

Theoretical Cash Statement Annual Event of Association Indicates Successful Management

Technique has at last got the appearances of a paying proposition. The theoretical report of Technique 1910, drawn up by the business manager, shows that if the advertisers. Tech clubs and classes pay up what they owe, this year's board will come out ahead. The probable error is very likely quite large, and the complete account may have a very different aspect finally. The report follows:

ASSETS.

Cash on hand, Owed by clubs and classes, Owed by advertisers, To balance,

1,460.00 27.00\$2,223.09

\$1,581.75

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LIABILITIES.

To printing, To engraving, To steel engraving.

52.00\$2,223.09

small panel, "The Potter," by K. E. Carpenter '09. On the rear wall are two large panels, "Naval Architecture," by Rinker Kibbey, and "General Science," by E. I. Williams.

In 1870 President Rogers and several mural decoration for Huntington Hall. Mr. Nesslen, and with them in the posamong which were the seal of the In-store the old panels was awakened. The stitute, Chemistry, Mining Engineering, matter was taken up by these old and Architecture. Outside financial as- friends, and by the Architectural Dewalls. They remained until the sum-lars, and on its class day, June 5, 1905, mer of 1898, when they were destroyed presented the seven panels occupying

THE TECH FORMER EDITORS TO DINE

at Hotel Westminster Tonight

Past and present editors of The Tech will get together for their annual dinner tonight at the Hotel Westminster, Copley Square, at six o'clock. As The Tech will next year launch out as a daily, the meeting this year should be a most significant one.

Last year nearly 40 members of former Tech boards met and appointed a committee to consider the question of a permanent Association of Tech Editors, with Arthur D. Little 1885 as chairman. \$ 400.09 This committee will render its report at 336.00 | tonight's dinner, and has several propositions to bring before the former penwielders.

> Important among the points to be discussed are the following:

That the title to all property of The Tech reside in the association; that the association receive a report on condi-180.00 tions and progress from The Tech board four times a year; that there be a gradual accumulation of a guarantee fund; and that an advisory committee to the board of editors be appointed.

> All former editors in town are expected to be on hand. The price per plate is \$2.00.

Through the active efforts of several men who had a genuine interest in the members of the Corporation appointed old frieze, it became possible in 1904 to Paul Nefflen to carry out a scheme of secure the original drawings made by Mr. Nefflen submitted several panels, session of the Institute, a desire to resistance was then sought and different partment, and it was finally decided to manufacturers in Massachusetts con- restore the frieze as fast as funds could tributed sufficient to have their re- be raised. The class of 1905 at once spective processes displayed on the subscribed nearly three hundred dol-

TECHINQUE 1911 IN FULL SWING

Elections are Finished and **Board Starts Active Operations**

Final elections to Technique 1911 resulted in the appointment of Hubert Stacy Smith of Bay City, Michigan, to the position of society editor, and of William Conyne Salisbury of Chicago, Illinois, and Charles Hudson Sayre Merrill of Manchester, Mass., to the position of statisticians.

Smith played on the class football team both years, and was a member of the gym team this winter. Salisbury has made a reputation both in class and varsity track work, and was captain of the class relay team last fall. He is president of his class, and has been a member of the golf team. Merrill has figured in class football.

Technique 1911 asks that all men who have any ability to make or draw cartoons will take it upon themselves to make page headings or caricatures for the grind department during the sum-

All work handed in by 1911 men will count toward positions on the art staff. The competition for the five positions open will close some time before October 15 next fall. All work submitted will be referred to competent judges, and while quality will be the primary essential, quantity and willingness to draw will also be considered.

It is not improbable that at least one of the five positions will be given to a man who shows particular ability in cartoon work. Cartoon headings are desired as well as sketches for the grind department.

It is desired that men from other classes than 1911 will also draw, and it would be particularly advantageous for men from 1912 to submit work in order that the 1912 Electoral Committee will not have the same difficulty in picking an art staff that this year's com-

(Continued on page 10.)

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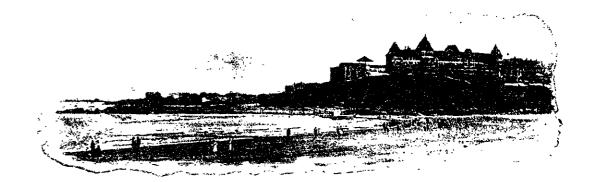
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TECHNIQUE 1911

(Continued from page 8)

mittee has had. All work submitted will be acknowledged, and a record of each man's work will be turned over to next year's committee.

All page headings and sketches for the grind department should be drawn in ink on white paper, enlarged to about one-half the size that they will appear in Technique. All full-page color plates should be confined to as few colors as possible, preferably one or two, and others should be made as wash or pencil drawings or as pen and ink work.

Over 100 drawings must be made, and all favors will be thankfully received. Further information will be given on application to D. R. Stevens, 32 Manchester Road, Brookline.

Four class histories must be written, and while it is not probable that these can be finished during the summer, at least good ideas can be worked out. The usual prize of \$5.00 will be offered for each history.

Further information can be obtained from W. J. Seligman, 24 Winchester Street, Brookline.

Grinds are at a premium as well as humorous articles and short verse. O. B. Denison, 26 Pearl Street, So. Framingham, has charge of this department, and may be communicated with.

Ten per cent. will be given on all new ads. obtained, and contract blanks and terms may be had from F. A. Moore, 262 Newbury Street, Boston. All men desiring to enter competition for the several positions on the business staff shoul communicate with Moore at once. Any man who enters this competition and fails to make a position on the staff will be allowed the 10 per cent. on new ads.

COMMENCEMENT EXERCISES

(Continued from page 1.)

Course VII, Biology-A Study of the Massachusetts Statistics of Poisoning by Illuminating Gas-F. Schneider, Jr.

Course VIII, Physics—The Magnetic Properties of Saturated Iron—G. E. Washburn.

Course X, Chemical Engineering-Determination of the Hydrocarbons Obtained in the Distillation of Wood Grease—L. R. Forrest.

Course XI. Sanitary Engineering-Design and Construction of the Massachusetts Institute of Technology Experimental Sewage Filtration Station at Calf Pasture, Dorchester, Massachusetts -M. R. Scharff.

Course XIII, Naval Architecture—An Investigation of the Application of Taylor's Formula to Turbine Driven Propellors—X. R. Smith.

Course XIV, Electro-Chemistry-On the Separation of Oil from Condenser Water by Electrolysis—R. Ellis.

The list of graduating students fol-

FOR MASTER OF SCIENCE. FOR MASTER OF SCIENCE.

Alfred Bennett Babcock, Miss Mabel Keyes Babcock, Cecil Franklin Baker, Ralph Johnson Batchelder, William Fredric Dolke, Jr., Harold Phillips Farrington, Stanley Phister Finch, Roger David Gale, Charles Anthony Harrington, Herbert Percival Hollnagel, Herbert Seymour Howard, Rinker Kibby, John Edward Otterson, Walter Sheldon Rodman, Joseph Douglas Trueman, Tsok Kai Tse, Ching Yu Wen, Edgar Irving Williams, Edward Fayette Church, Jr.

Harold Foote Ballard, Charles Leland Batchelder. Homer Charles Bender, Bion Angelo Bowman, John Nixon Brooks, Ballard Y. Burgher, Kenneth James Campbell. Richard Lucius Cary, Leland Clapper, Walter Woodbridge Clifford. Howard Wilbur Congdon, Chauncey H. Crawford, Thomas Charles Desmond, Joseph Cummings Dort, Henry Walker Dun, Jr., Edward Louls Edes, Herbert Charles Elton, Frederick R. Faulkner, Charles Freed, Bernard Roy Fuller, Keyes Christopher Gaynor, Gordon Mercer Gilkison, William Duncan Green, Thomas Felix Hickerson, Harold Foote Ballard, Charles Leland

Harold Howard Howland, John J. Hynes, Jr., George Leonard Lawrence, Jr., Paul Helme Lazenby, John Edward Lenox, Helme Lazenby, John Edward Lenox, Kevork Madenigian, William James McAuliffe, Samuel Norman McCain, John Francis McCarthy, Joseph Matte, Edward Dearborn Merrill, Lewis Dexter Nisbet, Joseph Warren Parker, Benjamin Ward Pepper, Charles Weston Radford, Morse Woolley Rew, Roger Cushing Rice, Julius Herschel Serra, Arthur Lassell Shaw, Leo Solomon Stone, Lockwood Jones Towne, Arthur Hubesty Turner, Willard B. Van Inwegen, Edward Thrasher Williams, Claude Thomas Wilson, Leslie Burton Ellis, Frank Sherman Lovewell.

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ence Hope Luscomb, Wilbur Alpheus Mean-or, Thomas Gresham Machen, Alvin Fred-

or, Thomas Gresham Machen, Alvin Frederick Menke, Henry Earle Myers, Lahvesia Paxton C. Packwood, Frank Weller Sharman, Rebecca Hall Thompson.

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Miss Elizzabeth Brewer Babcock, John Anderson Christie, Eugene Leo Connolly, Brainerd Dyer, Alan Francis Edge, Ernest Leonard P. Treuthard, Malon Patterson Whipple, Paul McCord Wiswall, George Madill Gadsby, Leon James Dyson Healy, William James Kelly, Burton Harold St. John.

COURSE VI.
Percival Lysander Adams, Salvader Altamirano, Albert Johnson Barnes, Louis Barnett, Egerton Mitford Bettington, Stephen Laurence Burgher, Philip Hartley Chase, Myron Mathews Davis, Chester Laurens Dawes, Robert Edward Doane, Francis 11. Dunnington, Wilbur Everett, James Irving Finnie, Robert Clifford Glancy, George Harrison Gray, Fred Mortimer Green, Delos Garriott Haynes, Louis Jacoby, Lewis Howes Johnson, Cyrus Thurston Johnston, Barry Hayes Jones, Reginald Lamont Jones, Robert Clark Kerr, Arthur Russell Knipp, Robert Clark Kerr, Arthur Russell Knipp, Francis Martin Loud, Andrew Lewis March Clifton Carroll Carter, John Mills, Haylett O'Neill, Henry Sabin Pardee, Matthew Porosky, Frederick Gardiner Perry, George Henry Reppert, Arthur Morton Rosenblatt, Jacob Herzl Schakne, Phifer Smith, Edward John Riley, Thomas Spooner, Harold Osborne Stewart, Harry Emerson Whitaker, Laurence Somerby Winchester, Herbert B. Winterstein.

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Palmer. Elmo Arnold Robinson. Franz
Schneider, Jr., Albert Fletcher Stevenson.

COURSE VIII. James Hamilton Critchett, Ridsdale Ellis, Franklin Livingston Hunt, George Ellery Washburn, Herbert Hammond Palmer, William Carleton Read.

COURSE X. Elliot Quincy Adams, Louis Gilbert Beers, Bradley Dewey, John Jacob Elbert, Laur-ence Raymond Forrest, Carl William Gram, Harold William Paine, Charles Morse Pritchard, Clark Shove Robinson, Joseph Newell Stephenson, Edward Ernest Wells, Rea E. Blankenbuehler, Charles Linco.n

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ACCOMPLISH MUCH **DURING PAST YEAR**

Many Progressive Changes Point Toward Better Institute

Out of a year of important and interesting events the selection of a permanent president is by far the most pregnant with promise. The past administration, extremely popular with the students, has guided the Institute always onward and upward, and much is expected of the new.

The new site, not yet discovered, is at least definitely settled in the abstract. Dormitories in the very near future. is one of he new president's wishes. The future is bright.

The past year has produced many changes.

Like a bolt out of a clear sky came the announcement that Professors Swain and Clifford, heretofore apparently indestructibly connected with the Institute, were to leave and go, of all places in the world, thought the undergraduates, to Harvard. Prof. Clifford has given as his reason for leaving after 23 years of service, "Harvard's need of good red Tech blood." Prof. Swain's reasons are quoted at length in another column.

As always, there have been progressive changes in the departments. A research laboratory of Applied Chemistry that has already done effective Lake, will be the last of the old style in October. The famous and respected have attended and enjoyed.

Albany Street Station of Sanitary Science moves this month to better quarters down the harbor where it will stand unique in the facilities for the continuation of its work. A half year course in Esperanto has been intro-Gymnasium or track work in the freshman year is now compulsory. Non-resident Professor of Astronomy Percival Lowell gave a six-lecture course on Cosmic Physics to large audiences. A number of short elective lecture courses have been given during the year by way of supplementing some of the regular Institute work. These and the Lowell Institute, Society of Arts, and Professional Society lectures have given the men ample opportunity to gain much practical and detailed knowledge of processes and subjects with which they will have to do later. It is satisfactory to be able to state that large numbers of undergraduates have taken these opportunities.

Dr. Schumacher came from Germany to give a series of conversational talks to advanced German students, that were well attended. M. Bertin, an eminent Frenchman, gave four lectures on certain aspects of naval architecture. A new option on the subject of Steam

Regular five-year courses have instituted in many of the departments. Men may now take the first year as regular four-year students, the work of the remaining four years being divided over four, or additional work with a view to receiving two degrees may be taken up.

Prof. Swain in his annual report earnestly advocated a permanent and compulsory summer school to be started in 1910. He reasoned that all field work could be done much better in such a camp than in the city during the winter. It is probable that such a course will be adopted next year, and this year's summer school, to be held at Rangeley work of commercial value, was started that so many of the Institute alumni

The various libraries and laboratories are being continually improved. In particular a 500-kilowatt steam turbine has been added to the mechanical engineering laboratories, a modern seismograph has been given the Department of Geology, and a scleroscope has been given the Department of Mechanic Arts.

The old Technology Quarterly has been discontinued and merged into the Technology Review, which has been greatly increased in size and improved in quality. In fact, throughout the year a campaign has been in progress to make the Institute better known among the alumni, the undergraduates, and the public at large. Never before has the Institute been advertised so much, or so well as this year. Some of the students have organized a Press Association, each man covering one or more newspapers, and every bit of Technology news is sent to all the Boston papers and to some of the larger nearby cities. The Tech, hampered by lack of nice has endeavored to develop new fields, and next year as a daily, will do so with a larger certainty of success.

Lectures and speeches made by various professors and by Dr. Noyes, Dean Burton, and I. W. Litchfield 1885, throughout the country, and the organization of new alumni associations, have have all tended to make the Institute better known and more appreciated.

L. A. Ferguson was this year elected President of the American Institute of Electrical Engineers; W. S. Snow 1889, President of the American Society of Heating and Ventilating Engineers. These are but few of the elections of Tech men, news of which has come to us during the year past.

The Prize of Rome was won this year

by E. I. Williams 1908, and many other Institute graduates, particularly in architecture, have been winning various competitions.

Technology professors are actively engaged in research work, which, by reason of its intrinsic value, and the publas Acting President.

licity given it by the Press Association, has gained the Institute much renown. Drs. Kalmus 1904, and Comstock 1904, have perfected a camera that convicts speeding automobilists. Ultra-violet rays and their use for the prevention and cure of disease has been taken up very successfully. Tests on full-size reinforced concrete beams have been carried out. Prof. Winslow has perfected a method of filtering dust from the air in laboratory work. Valuable chemistry research work has been done. Prof. Jagger has taken a trip to Japan and Hawaii to investigate volcanoes and earthquakes.

One of the Institute professors, by means of a graphical plot, has arrived at the conclusion that the Institute gives more general studies than any other technical school.

Among the important publications of the year are the "Register of Former Students," the pamphlet on the Mechanical Engineering Department, and the book for freshmen,, "Concerning Technology," now in preparation. The latter describes all the Institute courses, and the student activities, with much advice and miscellaneous information of interest to men coming to the Institute.

Convocations have been held at various times at which enough men usually gather to well-nigh fill Huntington Hall. The convocation at which Dr. Maclaurin met for the first time the student body was by far the best attended. Every seat was taken, the windows were full, and standing room in the back of the hall and in the aisles was utilized. President Wheeler of California, a most interesting, appealing, and magnetic speaker, had the second largest aud-

At the last convocation, held a few weeks ago, President Critchet 1909, presented to Dr. Noyes a loving cup, given by the student body as a slight token of their mighty appreciation of his work

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FUTURE LOOKS BRIGHT

One Mile Relay Team Broke Inter-Collegiate Indoor Record, Kanaly Re-engaged

Succussful beyond all expectations has been the record of the Institute in athletics during the past year. The cross country and track teams scored each a second in intercollegiate contests; barring an accident in one race, the outdoor relay teams were unbeaten; hockey, basketball, and fencing teams have done excellent work, much of it under very unfavorable circumstances; class athletics have never before been so interesting, nor so enthusiastically supported.

CROSS COUNTRY.

Harvard met defeat at the hands of a green cross country team over the 4 1-4 mile course on Field Day, by a score of 36 to 45. Each team had won two races and the Crimson team was looked on to win. Howland 1908, forced Jaques to run the course in 23 minutes 3-5 seconds to win and cut more than a minute off Howland's old record.

At Princeton on November 21, the team ran in the intercollegiate championships and came in second, but owing to a mixup in the change from the defunct cross country association to I. C. A. A. A. Tech had not been admitted to the latter organization and had to be content with knowing that Cornell is the only one of the large colleges with a superior cross country team. The ability, enthusiasm and personality of Coach Kanaly, though he has proved his efficiency in other branches of othletics, were particularly potent in developing the distance department.

A new record for the 8-mile course was set by Howland in the fall handicap race and a scrub team organized on the spur of the moment, with but one varsity man in the make-up, won the team prize in the A. A. U. cross country race for the championship of New England. In the intercourse races and the freshman-sophomore race this spring, there appeared men of excellent promise for a fine team next year. It is probable that in the future there will be a spring handicap race over the Tech-Harvard course.

TRACK TEAM.

land Intercollegiate championship meet this year, held at Tech Field. The disa Tech man was qualified that the Institute did not score and the points won were distributed among more events and among more individuals than those of any other college, which shows the fine balance of the team. Capt. Gram was prevented by an attack of sciatica from competing in the finals, where he would doubtless have added five points to the Tech total. The number of underclassmen who have done exceptional work this year augurs well for a winning aggregation next season.

vault by W. D. Allen 1911, in the spring meet, when he cleared the bar at 11 feet 4 1-4 inches. P. W. Dalrymple 1912, has improved his jumping ability from 5 feet 1 inch to 5 feet 8 inches, and is cuite reliable at this height. P. D. White, the sophomore half-miller is doing well, as is Salisbury of the same class in the quatrer. The weight events are still Tech's weak point, but the fellows of brawn are beginning to see their chances in this line and with this point strengthened. Technology will have a remarkably well balanced and efficient track sound.

Class track games have been given an impetus by the presentation of individuat cups for the winners of the mile run, the quarter and the 120-yard hurdles by Boston Y. M. C. A. and the Fenway J. L. Batchelder, Jr. 1890. Dr. J. A. Fencing Club of Boston, M. I T. took Bockwell 1896, and Benjamin Hurd 1890, respectively. The spring meet was won defeating such strong teams as Cornell, this year by the juniors, with only 4 Princeton. Pennsylvania and Columbia.

s rong. As there were no dual meets.

a spring handcap meet was held to add nology trio. interest to the work and keep the team in better shape.

BASKETBALL.

Under the most adverse conditions imaginable, a basketball team was developed at the Institute which won 10 games of the 16 played during its season. P. M. Wentworth 1909, was captain and W. B. Hargraves 1910, manager. First overcoming the opposing sentiment which cried for the abolishment of the winter sport, the basketball men were confronted with a greater and more immediate difficulty in the ack of practice room. One day each week and evenings was the only time at which the Tech gym could be utilized, foil wielders. on account of the recent introduction of compulsory physical training in the freshman class.

In spite of this handicap a team was developed which carried the cardinal and grey to victory over the green of Dartmouth, the royal purple of Williams and Harvard's crimson and which proved too strong for numerous other New England college teams.

HOCKEY.

Four games won, three lost and one played to a tie, is the record made by the hockey team this season. Twelve points were scored by the Institute seven against eight made by their opponents.

Beaten by Harvard by a goal made on a fluke, the team lost only to the Crescent Hockey Club and to Williams. Dartmouth, Amherst Aggies and Brown are among the teams which it defeated.

Bill Kelly 1909, and Bill O'Hearn 1910, were captain and manager.

GYMNASTICS.

With the introduction of dual gymnastic meets by the gym team this year, an important step has been taken in the advancement of winter physical development. Amherst sent down a team which administered a severe defeat to the Tech men. Independent of any aid from the Athletic Association, no more dual meets were scheduled, but several Boston exhibitions were successfully given.

In the last showing, ribbons were awarded the first three winners in each event, and additional cups were offered to the winner of the greatest number of points and to the first man in the tumbling contest.

Since physical exercise has become a faculty requirement from the freshman class, increased interest is being shown in the work at the gymnasiums on Garrison street.

CLASS ATHLETICS.

A new era in class athletics was marked when the freshman class won Field Day on November 6, 1908. For the first time since 1901, has the enter-Coach Kanaly did a great piece of ing class vanquished the sophomores in in 3 minutes 28 2-5 seconds. Another ing the home of nothing but work. A work when he pulled the team together the fall contest. The relay race was victory was won at Philadelphia when trip through New England, such as the that took second place in the New Eng- won by the sophomores with almost a quarter lap to spare, the tug-of-war went to the freshmen, two consecutive cus throw was the only event in which pulls, and it remained to the football game to decide the event of the day.

> until there were but three minutes to play, when a free kick gave the game to 1912 by three points. At one time 1911 had forced the ball between their opponents goal posts but it was fumbled behind the goal and run out.

Class basketball as a recognized branch of class athletics came as an innovation when class numerals were awarded the sophomore team for its two victories over the freshmen, 26-15 and A new record was set in the pole 28-4. Both teams played outside games, and were well supported.

Another freshman victory was gained in the annual freshman-sophomore cross country run.

Baseball honors also went to the freshmen in the championship series by default. The only game played was won by the sophomores, 8 to 0.

FENCING.

An undefeated team represented the Institute in the finals of the intercollegiate fencing championships in New York. With the highest score in the intercollegiate preliminaries, won from Harvard and Yale, and victorious over Pennsylvania. 6-3; Columbia, 7-2; Springfield Training School, 9-0 and 5-1; fourth place in the intercollegiate bouts. 1-3 points to spare over the second year Only the Army and Navy, and Yale by

men. The freshmen showed up unusual- a small margin, were able to score more points than were made by the Tech-

> The successful team was captained by V. C. Grubnau 1909, the other two members being E. M. Loring 1909 and H. G. Knox 1910.

Both the work of Knox, who lost but one bout before entering the intercollegiate finals, and the coaching of Lucien Fournon are especially worthy of praise. To the management of Maurice Chapin 1910, is due the excellent schedule of the year.

Thus, when the announcement came that Technology would no longer be represented by an officially recognized fencing team, the Institute gives up the spirit at a time when it will be remembered as a top-notcher among college

THE BASEBALL STIR.

When the first warm breezes indicated the approach of spring, the baseball germ became rampant among Technology fans, and strenuous efforts were made toward the establishment of a varsity nine. Petitions were distributed and a mass meeting was called in Huntington Hall. After heated arguments, both for and against a Technology team, it was finally decided to allow the matter to rest for another year, when th work of the class teams would show whether enough material was available for the organization of a successful nine. Lack of mancial support offered the principal difficulty.

Although the work of the class teams has not been as promising as was anticipated, the interest shown at the Institute in baseball has been manifested by the various courses. In several instances rival factions in a course have organized and played under such names as Gargoyles and Triglyphs from the architectural department, and the Helmenthacladiacae and Schizomycetes ious organizations of the large colleges of the biological department.

An interesting game was the press ball championship, The Tech vs. Technique, which, as usual, was won by The Tech, 17 to 16.

RELAY TEAMS.

Tech's one mile relay team was practically invincible. Their only defeat was at the Columbia University indoor games, when Fernstrom, the man to face the gun was tripped just as he had got under way, and lost half a lap on a ten lap track. He succeeded in catching one man before finishing his relay, however, and when Gram finished tearing off the final relay, the cardinal and around. gray was only 50 yards behind the crimson runner, who won the race.

Syracuse proved an easy mark at the B. A. A. games for the Tech team, who made the fastest time of the evening future students in every place where the without being strongly pushed. met the quartet from Wesleyan and is something here besides hard work. broke the intercollegiate indoor record Tech sufferes from the reputation of berace from Wesleyan and five other col- finest thing in the world to dispel this leges in excellent time.

A 2-mile team, patched up at the last moment after the loss of the best two men on it, trimmed Tufts at the Lawrence Light Guard meet in Medford, Februrary 13.

MUSICAL CLUBS TO MAKE LONG TOUR

Management Plans to Visit Big Tech Centres of the Country

Plans are now being made for much more extended work for the musical clubs next year. It is hoped that it will be possible to arrange for a much longer trip, and to take the burden of the advertising management off the shoulders of the managers, and give it to some regular agency. Those best fitted for this would be the various local Tech alumni clubs. If this would be done, the advertising would be much more efficiently managed and better audiences obtained, while at the same time the student managers could devote more time to the actual management of the clubs, and not be worried about getting halls and other details much more easily by those that know local conditions.

Under these conditions it would be possible to take a very much longer trip than the clubs have ever taken, and turn quite a little profit into the treasury at the end of the year. The vartake lengthy trips each year and make good things of them financially, and it is believed that the Tech musical clubs have now reached a point where they an do the same. This year has been the best yet and the clubs are now comparable to any of the musical clubs in New England that take long trips.

Another scheme that has been proposed is for the clubs to place themselves in the hands of some local agency that would take all the responsibility of financial success, paying a percentage on such profits as might be made, but the alumni method would be better all

Among the advantages given for such a long trip as has been proposed are: It would serve to keep awake interest in the Institute, both among former and At clubs stop, it will awaken interest in Troy, on Washington's Birthday they the Institute and will show that there the same team took the one mile relay clubs plan, it is thought, would be the

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OFFICIAL PROGRAM

(Continued from page 4) will be made at Nahant. The photograph will be 10 inches wide and about 60 inches long. By special arrangement copies will be furnished to the alumni at the remarkably low price of \$2 each.

A flash light photograph, 16 inches by 24 inches, will be taken at the banquet under the direction of the Notman Photographic Company, 3 Park Street, Boston. Proofs will be shown before the close of the evening, and copies may be ordered. Price \$2.50.

HAROLD PENDER

Experienced Electrical Engineer Comes to Institute

Harold Pender, an able teacher, experienced in original research work, and with years of successful, practical electrical engineering behind him, comes to the Institute next fall to take the professorship left vacant by Prof. Clif-

ford of Harvard.

· Harold Pender was born in Tarboro, North Carolina, 1879. He received his primary education in the public schools of Baltimore, Maryland, and at Mc-Donough School, near Baltimore, received the degree of B. A. at Johns Hopkins University in 1898, and Ph. D. at Johns Hopkins University in 1901; his special subjects were physics, electrical engineering, and chemistry. He held a Hopkins Scholarship for the years 1896-97 and 1897-98, and a University Scholarship for the year 1898-99; he graduated second in his class, and was elected a member of the Phi Beta Kappa Society in 1898.

· During the last two years of his graduation work at Johns Hopkins he assisted in the laboratory instruction of undergraduate students in the department of physics; in the summer of 1902 he gave a course in physics in the summer school at Syracuse University, and was for a time instructor in physics

at Syracuse University.

In December, 1902, he was invited by M. H. Poincare of La Sorbonne, Paris, to carry out in the laboratories of the University at their expense certain research work on the magnetic effect of moving charges of electricity, in which research he had been engaged in this country for the preceding two years. He therefore resigned the instructorship at Syracuse University in January, 1903, and spent the next four months



Prof. Harold Pender

in Paris, where he brought the research in question to a successful conclusion. The necessary funds for this work were suppiled by the Carnegie Institution of

Washington, D. C.

On his return to this country in 1903 he entered the shops of the Westinghouse Electric and Manufacturing Company at Pittsburg, Pa., and in the fall of 1903 was given a position in the engineering department of that company. While with the Westinghouse Company he made a special study of the heat radiation from large transformers and developed an accurate method of predetermining the size of cooling coils used in the water-cooled type; he also had charge of the testing of the sheet steel used in the construction of transformers and other apparatus.

In the spring of 1904 he took a position in the electrical engineering department of the New York Central Railroad: his work there was chiefly in connection with the transmission lines and sub-stations then being designed for the has been highly efficient, and has had New York terminal electrification.

In 1905 he became associated with a through the year with a profit of \$1.250. 69-83 PURCHASE ST.

THE "TECH" FLORIST

We tender our thanks to all the students that have patronized us this past year and hope to be favored with their patronage the coming year

214 Clandon St.,

hydro-electr developments along the

Northern Pfic Raliway, and the pos-

sible electration of certain sections

of this raiad, and a report to the Public Serv Commission of New York

on the ene meters in use in New

of professid papers published in the Philosophic Magazine, the Comptes

Rendus, anyarious electrical engineer-

AWARICABOT MEDALS

physical inovement during the past

year have een awarded as follows:

Marcus A.rossman 1911, Frank W.

Caldwell B, Alexander G. Herreshoff,

Jr. 1912, Maniel G. Herreshoff 1912,

and John all 1912. Honorable men-

tions, Auras P. Hornor 1912, Hubert

O. Maxwe 1912, Edward C. Mayers

1912, HenrH. Partidge 1912, and Rich-

The awling committee was Dean

Alfred E.Burton, Profs. Samuel C.

Prescott d Frederick H. Bailey, and

Mr. Winfil C. Towne, instructor in

TO SJDY IN EUROPE

The Tecology Architectural Travel-

ing Scholships has been awarded to Ralph Johon Batchelder 1908, of Cam-

bridge, Mss. The holder of this scholarshipeceives one thousand dollars and travelin Europe for one year, be-

Batchelø is a graduate student at

the Instite, and receives the degree of

M. S. thisear. Last year he won the

\$50 prize ffered by the Boston Society

of Architture for the best solution of a special coblem by fourth year regular

First notion was awarded to Joseph

T. Monn 907, second mention to Kin-

ker Kibb/ 1908. The other competitors

were W. . Dolke 1908, C. F. Baker 1907, H. D. Cindler, G., C. C. Ford 1908,

Louis Pitin, G., and W. B. Kirby 1907.

the insticting staff, Guy Lowell 1894,

and Predent Peabody of the Boston

MANAGERS CHOSEN

Dudly Clapp 1910 General

Manager of Tech Show

Garne A. Joslin 1909, general man-

ager of he Tech Show, 1909, announces

today the appointments to the manage-

ment o the Tech Show, 1910. The

appointments follow: General Manager, Dudley slapp 1910, of Dorchester; Busi-

ness Maiager, Irving White Wilson 1911, of Broolline; Stage Manager, Kenneth Greenlea 1911. of Sayanna, Ill.; and

Advertisng Manager, Henry Clarence

Davis, J., 1911, of Fort Andrews, Mass.

Dudley Clapp, the new General Mana-

ger, highly deserves the position to which le has been appointed. In his sophomore year he was second assis-

tant advertising manager, and this year

he was advertising manager. He has

written many lyrics besides. His work

much to do with bringing the Show

ard C. Stiney 1912.

physical tining.

ginning Sc. 1, 1909.

Society & Architects.

The Cab medals for the greatest

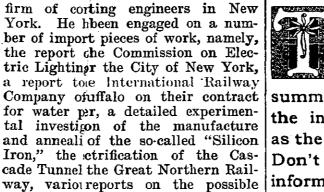
He is thuthor of a large number

York City.

ing journal

BOSTON

Opp. Tech



HAT IDEA OF YOURS for a history — don't let things go too long. Work it up over the

summer and do your writing on the installment plan next year as the things happen. Its easier. Don't forget the prizes. information address History Editor Technique 1911 care of SYMPHONY HALL

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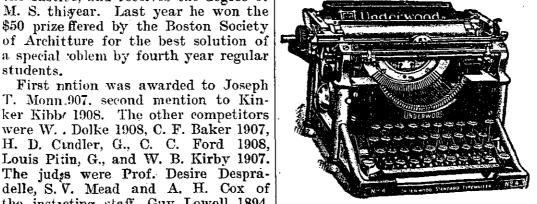
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BOSTON, MASS.

SOCIETIES FINISH NOTABLE SEASON

Classes, Activities, Clubs and Professionals All Busy

BIG ADVANCES MADE

Union Opened, Point System Made Night Before Abolished, All in One Year

The season of 1908-09 has been a notable one for the societies of the Institute in many ways, particularly because of the opening and use of the new Union, the efficient organization proposed and put into effect by the Institute Committee, and the growth and development of the professional societies.

The point system for the limitation of office and position-holding was adopted by the Institute Committee early in the fall as a result of agitation for some such measure last year. Values of from 1 to 10 points were assigned to each position, and it was announced that no man should hold positions totalling more than 10 points. When the system was tried certain modifications were found necessary, the most important of which practically excepted athletics from the rulings by stating that men holding 10 points or less in societies might engage in an athletic sport regardless of what total it brought them; also the value of certain offices was changed where the general opinion seemed to be that they needed it.

Of course such a system would be useless unless backed by the classes and organizations covered by it, but the

Institute Committee had little difficulty in convincing a majority of the students that it would work successfully. Opposition was strongest in the classes of 1910 and 1911, yet it now appears after a thorough try-out, that the results in those classes have been satisfactory, as indeed they have been all along the line. The system protects the student body from one-man domination, and the individuals from overwork. It also distributes offices, honoring and developing more men.

The classes have followed the usual routine fairly closely, but certain deviations from it are interesting. 1911 voted early last fall to abolish the "night before" rough-house at the Field, and 1912 finally agreed that no class flags should be flown on Field Day. The flag rushes of previous seasons had attracted so many stone-throwing hoodlums to the scene that the occasions had become dangerous to the contestants, and while it seemed too bad to give up a chance to show class spirit, the move was a wise one, and deserved the commendation it received. Both freshman and sophomore dinners were notable for the absence of the chairmen, each of the classes being apparently stronger on offense than defense.

The senior class departed from custom by holding its New Year's Eve celebration in the Union instead of attending some theatre in a body. Most of the men liked the change. It also voted to back its Portfolio Committee financially, a move which gave the committee sufficient confidence to bring out an admirable book without needing the guaranteed support.

So much has already been said of the Union that it seems unnecessary to describe it here. The dining room under this year. As stated in Telique, the student government has not been a marked success, but the experience gained this year will probably of value neering Society 176, last yeal09; the

The use of the living room of the Union has been most gratifying. Nearly | Society 124, last year 83; & Mining every noon it has been crowded, and | Engineering Society 72; lasyear 42; a good number of men have been pres-

ent nearly all the time has been year 25; the Chemical Society 72, last special committee, have n well attended and enjoyed. Am these may the opening of the Cherolreservation, and western cyclones, by K. Humphrey 1898, and "Bantand" (Jamaica) by G. E. B. Putn; a concert by the Musical Clubs; a nonstration of jiu-jitsu by Prof. O'Bri "A Month in the Cannibal Islands," Dr. Den-O'Fagan; on diseases and stary engineering, by Prof. Sedgwichn old age pensions, by L. D. Brans; on the cruise around the world, Lieut. W. B. Tardy, U. S. N.; on decracy, by Rabbi Fleischer; on banksd banking methods, by President s of the Shawmut National Bank;nd on the young man in politics, bDist.-Atty. Hill. The last entertainst was the "open house" for the ircollegiate meet two weeks ago.

The "activities" appea to have passed through a successfulason. The Show, "That Pill Grimm, by Sidney A. Malcom 1909, was well-ceived at every one of its five perfornces, and was considered notable inoth book and lyrics. Technique 1910ew a good crowd at the time of theush, and, barring its resemblance to Webster's Unabridged Dictionary, it is first-rate book, and well abreast of tstandards set in previous years. Therom delighted its guests, and the Mcal Clubs earned their laurels repeated and got them, as those who attendene winter and spring concerts can test.

The Tech has worked outh efficient organization of its news, circution and business staffs, and at lastels ready to make the change to a dy, which has been under considerat for at least two years.

The professional societies I show a marked increase in their mbership Architectural Society had 6members, as against 53 last year; the vil Engi-Electrical Engineering Socie(145, last year 121; the Mechanical gineering the Naval Architectural Socii 29, last

open. The Friday evig "Union year 54; and the Biological Society 34, Night" entertainments, cl for by a last year 25. The showing of the Mechanical and Electrical Engineering Societies is peculiarly notable, as only juniors and seniors are admitted to them, whereas in most of the others sophomores may also belong. The societies have enjoyed many interesting talks on various phases of their professions. During the year the Civils have heard R. S. Weston 1874 speak on ison; Hook Night; talkin railway ground water; Prof. C. B. Breed 1897 accidents and efficiency by James on expert testimony; F. N. Fay 1893 on the Boylston Street bridge; L. Metcalf 1892 on the question of contract vs. day labor; J. S. Droege of the New Haven system on transportation problems of New England, and F. S. Green on waterproofing. The Electricals have heard Prof. M. de K. Thompson 1898, on electro chemistry; L. A. Ferguson on the value of training; Frank J. Sprague on electric railways, and other noted elec-trical engineers. The Mechanicals have had several profitable meetings, and are about to affiliate with the A. S. M. E., the national society. It is worth remarking that the Civils and Electricals held their annual banquets and farewells to departing professors the same night, in the same building.

The locality and school clubs have done fairly well this seasosn, and the Catholic Club has flourished. The Chess Club has increased its membership from 14 to 34 in one year, and is attracting considerable attention by its frequent meetings and contests. The Republican Club, organized under the auspices of the Republican National College League, turned out 500 men for the torchlight parade last October, led by a well-known Democrat and a suspected Socialist. One society has passed quietly away-the Civic Club is no more.

Limited space forbids the proper treatment of the Technology and Walker Clubs, the Review and the Quarterly, the Architectural Record, Cleofan, and many other organizations which are steadily at work for the good of the Institute and its students. The past year has seen growth all along the line, organization and development in many ways, and a general healthy activity, which with a good record of past performances, indicates even better things in future.



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MAXIM ANTISEPTIC TELEPHONE MOUTHPIECE

Absolutely the only Antiseptic Mouthpiece on the market

From New York Evening Sun, July 15, '08

'CHANGE GERM HUNT

TELEPHONE CLERKS ARE BEING EXAMED FOR TUBERCULOSIS

At the close of the stock market to-do physicians of the Board of Health resumed their examination of the tephone clerks and employees of the Stock Exchange to ascertain whener any of them possessed traces of tuberculosis or other pulmonary seases.

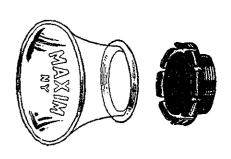
There are 300 telephone clerks employed by various stock firms and ten by the Exchange. They all have to usthe phones during the day's business. As a precaution, the present camination has been ordered by the board of directors. The examinate will continue every afternoon until the entire force has been examined.

Some time ago the directors gave ders to have all telephone transmitters covered with antiseptic gauz. Since then, one case of tuberculosis was brought to the attentio of the directors and they thought the present examination advisable. The first began yesterday and the physicians found only one who hatraces of the disease.

Secretary Ely of the Exchange says at any person found to be suffering from tuberculosis will be sent to sanatorium at the expense of the Exchange.



The above cut shows the complete mouthpiece, ready to screw on the telephone instrument.



The above cuts show the mouthpiece separated, ready to insert a new fitter.

Unscrew the black mouthpiece from your instrument and screw on the MAXIM ANTISEPTIC in place of it.

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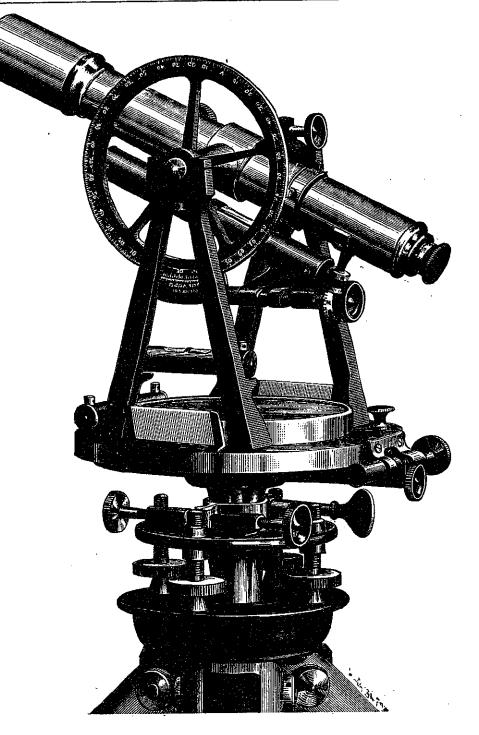
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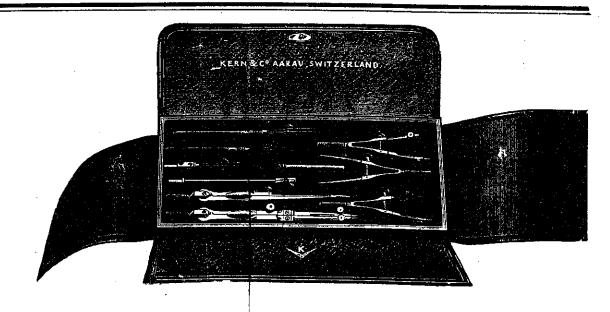
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